INPUT

MARKET FORECAST

Information Systems Outsourcing Market Europe

1994-1999

Outsourcing Programme—Europe

Information Systems Outsourcing Market

Europe, 1994-1999

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Abstract

The European outsourcing market is continuing to grow rapidly. European organisations are increasingly seeking a combination of cost reduction and re-engineered business processes. In the private sector, the recognition of outsourcing is typically prompted by a need to improve the organisation's competitive standing, while the public administration sector is coming under growing pressure for higher efficiency in service delivery.

The IS outsourcing market is still becoming more competitive. The major U.S. vendors have increased their market shares over the the past two years as have the outsourcing subsidiaries of the major equipment vendors. In addition, the emergence of a major market for desktop services is attracting yet more vendors to compete in the outsourcing market.

Accordingly, vendors are revising their positioning by focusing on particular segments of the outsourcing market or particular industry sectors.

This report tracks these trends in the market and provides outsourcing market forecasts for each European country over the period 1994-1999. Analyses are provided predicting the variations in growth between the various market segments such as platform operations, desktop services, network management, applications management and applications operations, and by industry sector. The market shares of the leading vendors in each national market are also identified.

In addition to IS outsourcing, business operations and SAP outsourcing are forecast at the European level.

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**Outsourcing Information Systems
Programme—Europe**

*Information Systems Outsourcing Market—Europe,
1994-1999*

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Introduction

A

Scope and Objectives

The European outsourcing market continues to grow rapidly, fuelled by the emergence of a greater diversity of vendor offerings in the more mature outsourcing markets and by increasing acceptance of the concept of outsourcing elsewhere.

At the same time, the level of competition in the outsourcing market continues to increase. The leading vendors such as EDS and Sema Group are steadily increasing their geographic coverage within Europe, and the emergence of new opportunities such as desktop services is increasing the diversity of vendors entering the outsourcing market. The indigenous professional services vendors are facing increasing competition from the equipment vendors' outsourcing subsidiaries. In addition, further U.S. outsourcing vendors are preparing to follow the lead of EDS and CSC in targeting the European outsourcing market.

The objectives of this report are:

- To monitor the changes taking place in the European outsourcing market

- To forecast the size of the IS outsourcing market by country, industry and delivery mode

- To identify the outsourcing market shares of the leading vendors in each country.

Outsourcing is defined by INPUT as follows.

Outsourcing is a long-term relationship (greater than one year) between a client and vendor in which the client delegates all, or a

major portion, of an operation or function to the vendor. The operation or function may be solely Information Systems Outsourcing-based, or merely include Information Systems Outsourcing as a prominent component of the operation (at least 30% of the budget).

The critical components defining an outsourcing service are:

- Delegating an identifiable area of the operation to a vendor

- Single vendor responsibility for performing that delegated function

- Intended, long-term relationship between the client and vendor

- Contract term is at least one year

- Client's intent is not to perform this function with internal resources

- The contract may include non-Information Systems Outsourcing activities, but Information Systems Outsourcing must be an integral part of the contract

- Outsourcing is a collection of services integrated under a single, long-term contract with one vendor responsible for its operation and management.

Business Operations Outsourcing (also known as, Business Outsourcing or Functional Outsourcing) is a relationship in which one vendor is responsible for performing an entire business/operations function including the Information Systems Outsourcing that support it. The Information Systems Outsourcing content of such a contract must be at least 30% of the total annual expenditure in order for INPUT to include it in the Business Operations Outsourcing market.

Information Systems (IS) Outsourcing can be viewed as a component of the Business Operations Outsourcing market (i.e., Information Systems Outsourcing is a business/operations function, see Exhibit I-1). However, in order to delineate between outsourcing contracts that are solely IS versus those that include IS as well as other functions, IS Outsourcing will be segregated from Business Operations Outsourcing. Information systems

Outsourcing is divided into four service components as shown in Exhibit I-2.

- *Systems Operations* outsourcing describes a relationship in which a vendor is responsible for managing and operating a client's "computer system"/data center (*Platform Systems Operations*) or developing and/or maintaining a client's application as well as performing Platform Operations for those applications (Applications Systems Operations).

- *Desktop Services* is a relationship in which a vendor assumes responsibility for the deployment, maintenance and connectivity of personal computer, workstations, client/server and LAN systems in the client organisation. To be considered as Desktop Services outsourcing, a contract must include a significant number of the individual services listed below.

  - Software Product Supply
  - Equipment Supply
  - Equipment/Software Installation
  - Equipment Maintenance
  - LAN Installation and Expansion
  - LAN Management
  - Network Interface Management
  - Client/Server Support
  - Logistics Management
  - User Support
  - Help Desk Functions
  - User Training and Education

- *Network Management* outsourcing is a relationship in which a vendor assumes full responsibility for operating and managing the client's data telecommunications systems. This may also include the voice, image and video telecommunications components.

- *Application Management* is a relationship in which the vendor has full responsibility for developing and maintaining all of the application systems for a business operation or function.

Exhibit I-1

Business Operations Outsourcing
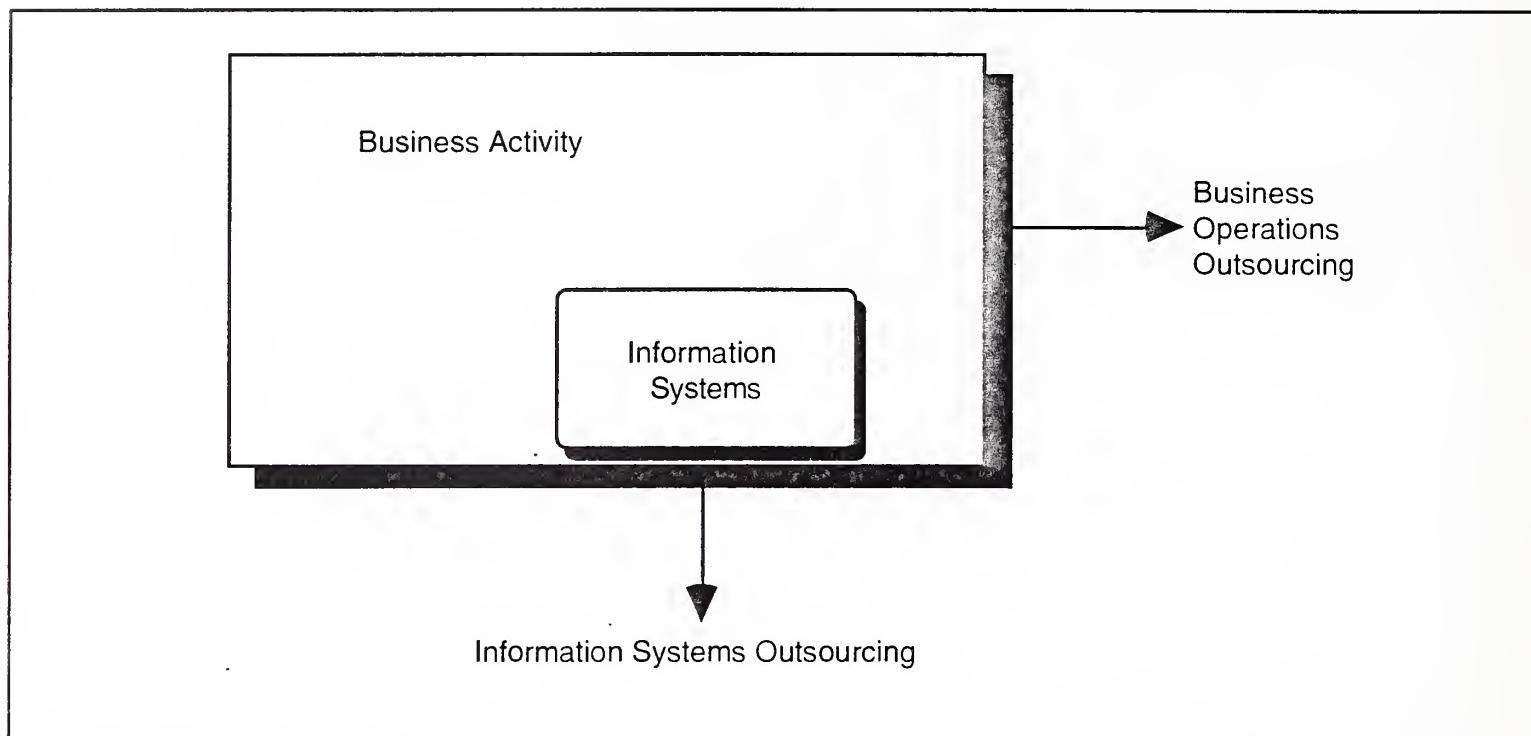
Source: INPUT

Exhibit I-2

Information Systems (IS) Outsourcing Service Categories

Source: INPUT

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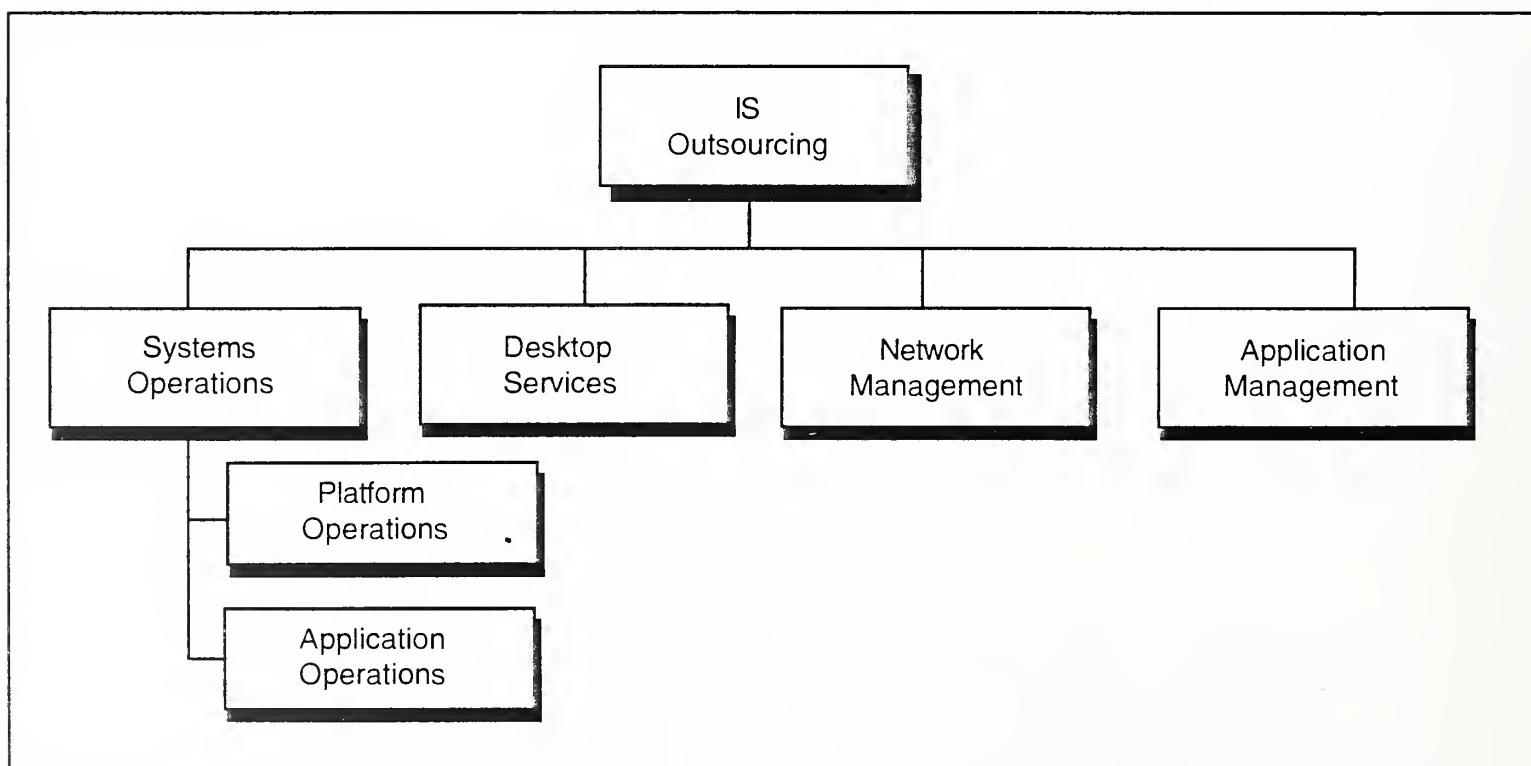
The above definitions focus on the services covered in the outsourcing contract. For example, an Application Operations contract can include all facets of Information Systems Outsourcing (platform operations, desktop services, network and application management). The key to INPUT's market definition is the service contract . If a customer only wants to outsource the network, it is network management outsourcing. If an airline, for example, wishes to outsource their reservation operation which includes not only the network, but also its infrastructure, applications and the people running the operation, this is a Business Operations Outsourcing contract. Exhibit I-3 shows the service components that may be included in each outsourcing service category.

Exhibit I-3

Outsourcing Service Components

Component	Plat. Ops.	Appl. Ops.	Desktop Services	Net. Mgt.	Appl. Mgt.	Bus. Ops.
Project/Contract Management	X	X	X	X	X	X
Data Centre Management	X	X				X
Client Server Opposition	X	X	X			X
Equipment Maintenance	X	X	X			X
System Software Maintenance	X	X	X	X		X
Application Software Maintenance		X	X		X	X
Application Development		X			X	X
LAN Management		X	X	X		X
WAN/MAN Management		X		X		X
Transaction Processing Services		X				X
Other Professional Services		X	X		X	X
Business Process Operations						X

Source: INPUT

The largest, most visible contracts awarded over the past year have been typically Application Operation outsourcing contracts

since they, at least, included management of the infrastructure (data centers and various computing platforms) and the support of some the legacy applications. In the past, most Application and Platform Operation outsourcing contracts included network management but recent contracts have also included desktop services.

What is not included in INPUT's world of outsourcing are the following:

- Project based services are not considered as part of outsourcing. Thus, Systems Integration and application development projects are not included.

- Services that were never intended to be performed internally. Maintenance only services do not constitute an outsourcing function by itself. However, responsibility for hardware and software maintenance is inherent in most outsourcing contracts.

- Processing services contracts of less than one year.

- Voice-only network management.

- Business operations with minimal information systems content. The outsourcing of the marketing communication function to an outside agency is not covered by INPUT's analysis. A function or business operation must at least have 30% of its budget attributed to information technology to be included.

B
Methodology

The data shown in this study was derived from the following combination of sources:

- A vendor research programme of over 500 interviews with key software and services vendors across Europe.

- A further 1,000 vendor and user interviews across all European market sectors to determine trends and opinions.

- INPUT's continuous analysis of the delivery modes and vertical industry sectors comprising the computer software and services market.

  Additionally, INPUT's extensive library and database of information relating to the European outsourcing market was used.

C
Report Structure

Section II consists of the Executive Overview which is a summary of the key data in the report.

Section III provides an analysis of the European outsourcing market overall. This includes forecasts for the period 1994-1999, analyses by country, industry and delivery mode, and the identification of the leading twenty-five vendors in Europe.

Section IV provides forecasts and leading vendor assessments for each individual country market. Industry analyses are provided for France, Germany, and the U.K.

D
Related Reports

Outsourcing Opportunities in Government-Europe, 1993-1998

Client Satisfaction with IT Outsourcing Services-Europe, 1993

Business Operations Outsourcing-Europe, 1993

Desktop Services Outsourcing-Europe, 1994

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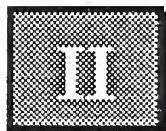
Executive Overview

A
Vendors Differentiate Outsourcing Offerings

In the initial stages of the development of the European outsourcing market, the market was characterised by horizontal service offerings intended to deliver cost savings in a mainframe data centre environment. Despite the high growth of this market, vendors found the market to be very homogeneous and competitive. Consequently it was difficult for them to differentiate their offerings on any basis other than price. However, as the outsourcing market has developed, so the segmentation of the market has increased and vendor positioning has diverged.

These developments have increased the options available to vendors in positioning their organisations within the European outsourcing market. In particular, this evolution in the market has enabled some vendors to enter the outsourcing market even though they lack mainframe platform operations capability and has enabled other vendors to move away from this market segment in pursuit of more profitable business elsewhere in the outsourcing market.

With some exceptions, service development in the European outsourcing market remains horizontal in nature rather than industry-specific. The main trends in demand and hence vendor offerings are:

- From mainframe-based platform operations services to wider IT infrastructure management

- From a cost reduction emphasis to an emphasis on the improved application of IT in support of wider business development aims

- From an exclusively IT focus to a wider business operations perspective.

Industry focus remains a comparatively minor positioning parameter in the outsourcing market at present. This presents a significant contrast to the project services market, where industry and application knowledge are already key differentiators. However, this situation will change inthe future. As outsourcing becomes more influenced by business reengineering and business operations, so industry, business process and application specific knowledge will increase in importance. Consequently, vendor selection criteria in the outsourcing market will come to more closely ressemble those in the systems integration market. Some vendors are already reorganising their organisational structures to increase the level of industry-specific skill available to their outsourcing business units. For example, Hoskyns has reorganised into four customer facing divisions targeting the finance, public, industry and services sectors.

Finally, the leading vendors are continuing to develop their presence in Europe by geographic expansion of their activities.

B
Increasing Scope of Operational Services

Exhibit II-1 provides the overall forecast for the European IS outsourcing market.

Exhibit II-1

European IS Outsourcing Market
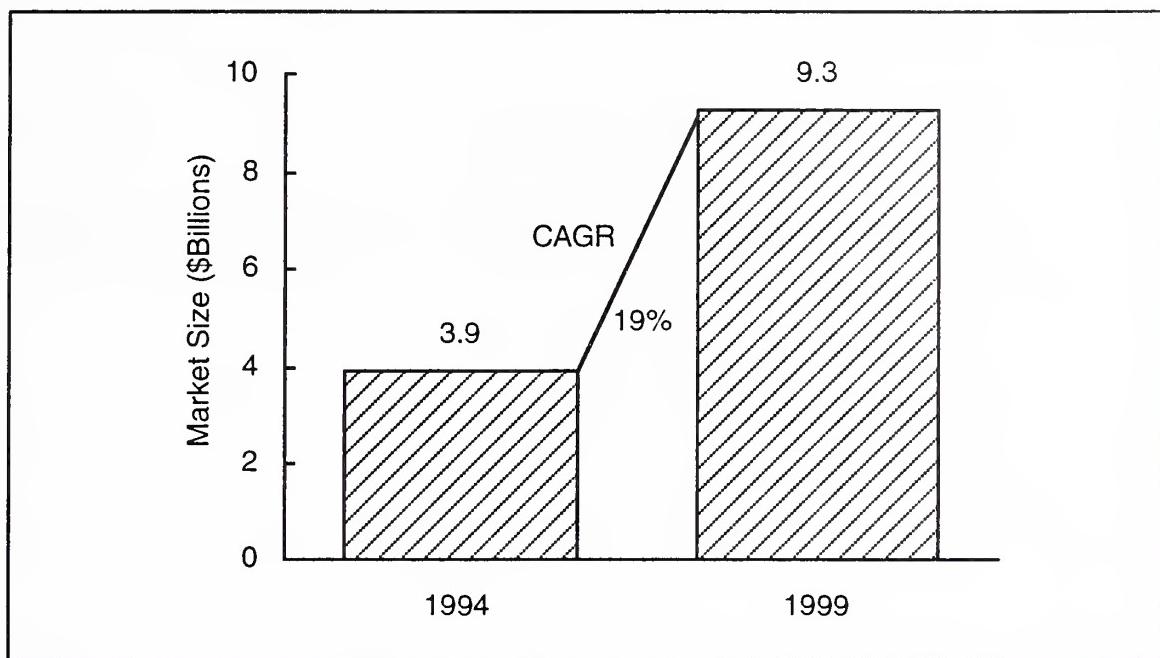
The European outsourcing market will continue to grow rapidly. However, this growth will no longer come primarily from mainframe data centre management. For example, in Germany, the nature of the SAP outsourcing opportunity is changing from the supply of mainframe-based processing services for medium-sized organisations to services based on assisting organisations manage the transition from R/2 to R/3 and the management of client/server based architectures.

The growth in the European IS outsourcing market is shown by segment in Exhibit II-2.

Exhibit II-2

IS Outsourcing Market Segments, Europe 1994-1999

Segment	1994	1999	CAGR (%)
Platform Operations	950	1600	11
Applications Operations	1900	4700	20
Desktop Services	400	1300	27
Network Management	500	1000	15
Applications Management	200	700	27

IS Outsourcing Market Segments ($ Million)
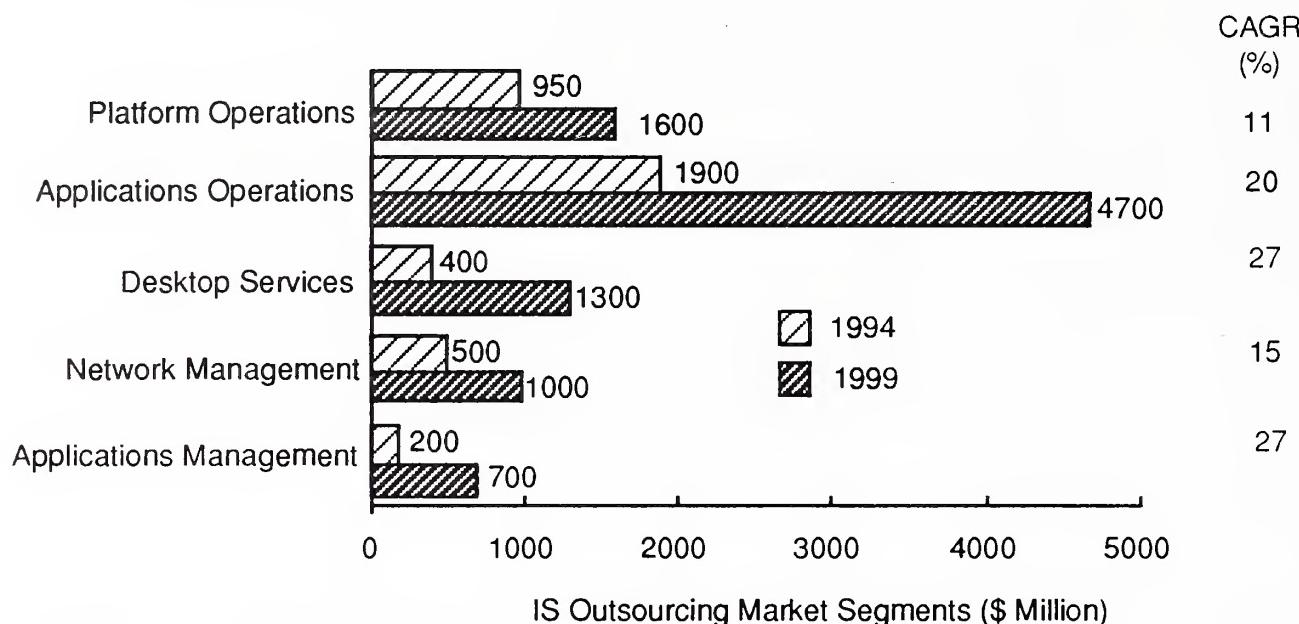
Growth in the platform operations segment of the market is forecast to decline over the next five years. However, the overall high growth in IS outsourcing will be maintained by high growth in applications operations and by the emergence of desktop services and applications management.

These latter two market segments are critical in assisting organisations make the transition from mainframe-based architectures to client/server based IT infrastructures.

A large component of the European outsourcing market has traditionally been focused on assisting organisations make the transition from a mainframe-centred IT infrastructure to a more distributed environment. At first, the new environment was often based on standalone mid-range equipment such as IBM AS/400s. Nowadays, organisations are increasingly moving towards a client/server architecture, and placing more emphasis on desktop computing. However, while clients have in the past wanted vendors to take over the management of the mainframes being phased out, they have traditionally been more reluctant to entrust the management of their new IT environments to external vendors.

This is now beginning to change as organisations begin to appreciate the complexity of managing their new infrastructures.

As a result, many organisations that have already outsourced the operation of their mainframe datacentres now seek vendors to manage their distributed systems and desktop environments. In addition, other organisations are independently outsourcing the operation of their client/server and desktop infrastructures.

This is creating opportunities for vendors without mainframe platform operations skills who previously found it difficult to address the outsourcing market. Vendors with predominantly UNIX-based systems management and desktop services capabilities include Digital, Hewlett-Packard, and the major PC dealers such as P&P and those represented by the International Computer Group. Indeed, the European desktop services market is becoming very competitive as the majority of the traditional outsourcing vendors are joined by new entrants such as the major PC dealers and third-party maintenance organisations.

However, infrastructure outsourcing deals with major organisations involving a major element of mainframe datacentre outsourcing, will still be dominated by the economics of datacentre outsourcing. Clients will tend to favour vendors that have significant mainframe outsourcing capability in-house rather than vendors with extensive client/server and desktop management capability who may need to use partners for access to datacentre operations capability.

Vendors that have established a comprehensive IT infrastructure capability include Hoskyns, debis Systemhaus, and SHL Systemhouse. Those with predominantly mainframe datacentre capability include IBM, EDS, and CSC. Although EDS has established its Technical Products Division (TPD) in Europe to serve the desktop services market, TPD has a greater emphasis on product distribution than on true outsourcing services such as LAN management.

Cap Gemini Sogeti is increasingly focusing on services that support organisations in making the transition between mainframe and client/server architectures, such as applications management and desktop services.

C

Growing Emphasis on Reengineering and Business Operations

In addition to seeking cost reduction, the majority of organisations that have adopted IT outsourcing wish to use IT pro-actively and require an improvement in the application of IT to their business.

Exhibit II-3 illustrates the emphasis placed on business reengineering by a number of leading vendors.

Exhibit II-3

Reengineering Emphasis
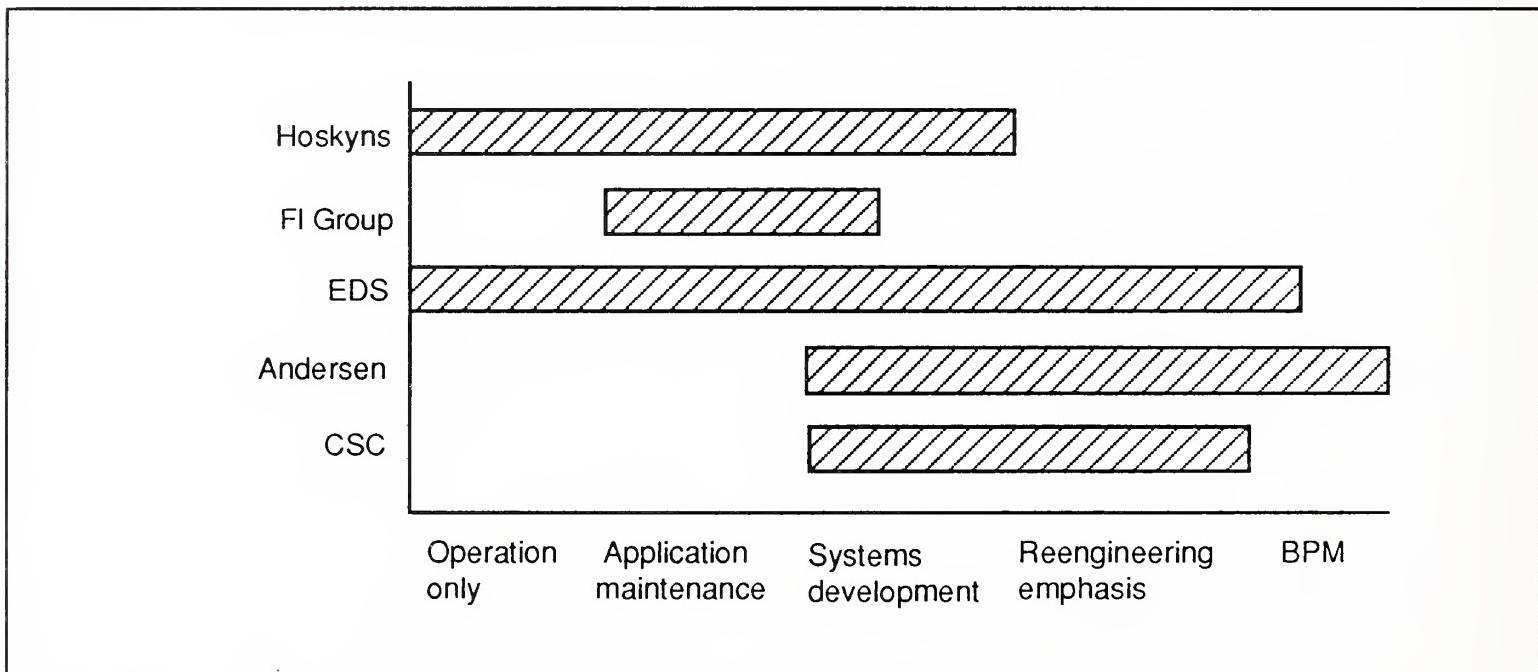
Source: INPUT

The major U.S. vendors such as CSC and EDS as well as Perot Systems have been particularly successful in targeting major applications operations contracts with a strong business re-engineering emphasis. For example, Perot Systems is redeveloping the operational systems of Europcar and East Midlands Electricity, while CSC's re-engineering capability was instrumental in the company being awarded the BhS outsourcing contract. EDS' ability to apply the latest retailing technology was a major factor in winning the KF contract.

Amongst the European outsourcing vendors, GSI has considerable development expertise in the distribution sector.

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However, the majority of European vendors place a greater emphasis on their operational management and technical capabilities than on their ability to support business re-engineering within the client.

Hoskyns' outsourcing portfolio is a good example of this. Hoskyns' outsourcing service lines consist of:

- Centralised computing services

- Distributed computing services

- Applications management

- Network services

- Desktop support.

Although Hoskyns also has considerable business integration expertise and is now starting to take a more industry-centred, rather than service-centred, approach to the market, the company remains technically oriented in the outsourcing market. In particular, the company considers its technically oriented application management and distributed computing services to be the key growth opportunities in the immediate future.

To a certain extent, this is a cultural difference between vendors. Some vendors, such as EDS, emphasise the concept of the *Impact Gap* , the gap between the potential benefits of information technology and those achieved by the in-house service provider. Other vendors such as Cap Gemini Sogeti and Hewlett-Packard are more prepared to tackle the service components that the in-house service provider selects for outsourcing. Hewlett-Packard, for example, is endeavouring not to compete openly with IT managers, but to persuade them that they should concentrate their department's efforts on systems development while Hewlett-Packard handles the operational management of their open systems and desktop infrastructures.

Other vendors are going beyond IT outsourcing and focusing on business operations contracts.

The forecast for business operations is shown in Exhibit II-4.

Exhibit II-4

Business Operations Market, Europe 1994-1999
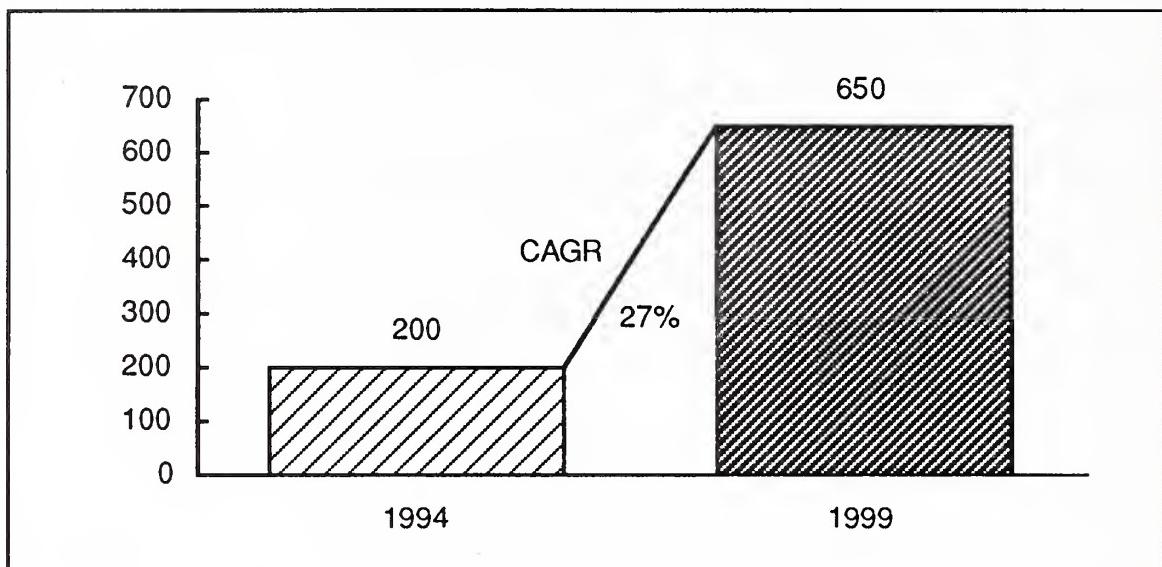
Many of the vendors targeting the U.K. local government sector such as ITnet and Data Sciences developed managed services capability during 1993. Indeed, the U.K. public sector is forecast to be the major business operations market in Europe over the next five years.

However, significant opportunities in areas such as billing and customer support are expected to emerge in the private sector.

For example, Andersen Consulting takes comparatively little interest in the mainstream IT outsourcing market, but has already been successful in developing a business to manage the accounting functions of a number of North Sea oil companies. Historically, the company tended to become involved in transition outsourcing in support of major systems integration projects.

EDS has also begun to target the business operations sector in Europe. The company has contracts with two municipal authorities for parking fine collection and with Time Life for its fulfilment·function to English speaking countries.

The business operations market in Europe will continue to develop driven by Compulsory Competitive Tendering in U.K. local government, and by the desire to reengineer high-cost, labour-intensive business processes.

D
Industry Focus Will Become More Important

As business reengineering grows in importance as a driving force within the European outsourcing market, so the need for industry focus will increase. At present, outsourcing services are largely horizontal in nature, though there is a growing need for vendors to develop specific knowledge of the public sector in the U.K.

Currently the manufacturing sector remains the major market for outsourcing in Europe. A breakdown of the European outsourcing market by industry sector is shown in Exhibit II-5.

Exhibit II-5

Industry Sector Forecast ($m), Europe 1994-1999

Sector	Europe 1994	Europe 1999	CAGR (%)
Manufacturing	1600	3200	15
Government	1000	3000	24
Financial Services	900	2100	18
Distribution	360	830	18
Utilities	310	670	16
Transportation	120	330	23
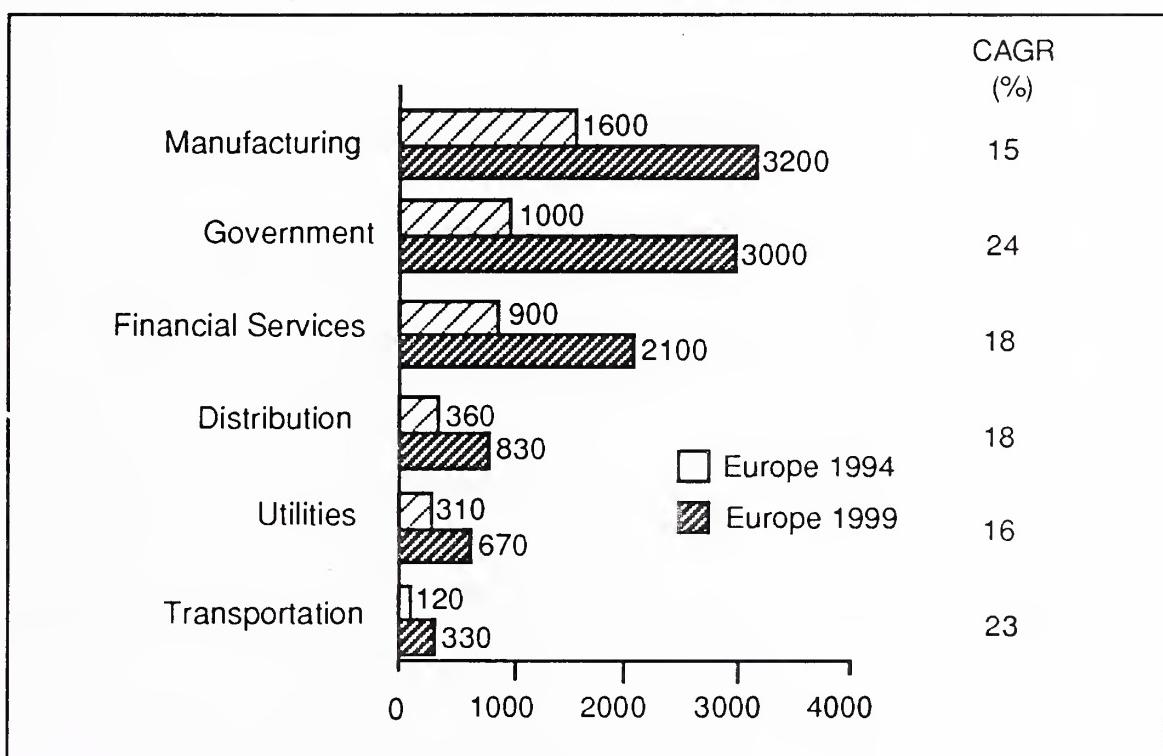
Source: INPUT

The manufacturing sector will continue to be an important source of outsourcing revenues in Europe. This sector is particularly important in Germany and is becoming of increasing importance in the emerging Italian outsourcing market.

However, the public sector is becoming an area of growing interest to many vendors. EDS has established itself as the most successful vendor in targeting outsourcing within U.K. central government, and other vendors such as ICL/CFM and the Capita

Group have achieved considerable revenue growth while specialising in the U.K. local government sector.

Outsourcing growth will be rapid in both local and central government in the U.K. over the next three years at least, and this trend is likely to transfer to other major national markets during the course of the current forecast period. as other governments seek to reduce the cost of administration to their taxpayers.

There are specialist processing services vendors such as Sligos and Axime targeting the banking sector in France. These vendors will endeavour to extend their processing services offerings into business operations for the financial services sector. In addition, the medium-sized financial institutions in Germany and Italy are serious candidates for systems operations services.

Although the major banks in the U.K. have been slow to adopt systems operations, they are one of the leading sectors in the adoption of desktop services and applications management.

Growth in IS outsourcing in the utilities sector in the U.K. will slow down as these organisations come to the end of their restructuring programmes following privatisation. However, there are prospects of privatisation in the utilities sector in Germany creating opportunities for outsourcing vendors there. Privatisation, or the break up, of the Post Office in the U.K. will create opportunities in this sector.

E

Leading Vendors Continue Geographic Expansion

Vendors are increasing their geographic coverage of the outsourcing market and many of the leading vendors are still seeking acquisitions or joint ventures to develop their market presence. Furthermore, following the success of vendors such as EDS and·CSC, other North American outsourcing vendors are actively evaluating the potential of the European market, and a number of these vendors can be expected to enter the market soon.

The maturity of the outsourcing market varies widely between countries in Europe. The proportions of the market accounted for by each of the major regional markets is listed in Exhibit II-6.

Exhibit II-6

Regional Outsourcing Markets, Europe 1994-1999

Region	Market Size ($m)	Proportion of European Market (%)
Europe	3900	100
UK	1400	35
France	950	24
Germany	400	10
Scandinavia	370	9
Italy	300	8
Benelux	280	7
Rest of Europe	200	6

Source: INPUT

The most developed outsourcing markets in Europe remain in the U.K. and France. The Scandinavian market is also well-developed in terms of service development and leading vendor presence but is a significantly smaller market than those in the U.K. and France.

The German, Italian, and Belgian outsourcing markets are less well developed but are catching up with the major European outsourcing markets as the leading vendors begin to transfer outsourcing expertise into these areas.

The leading five vendors in terms of European outsourcing revenues in 1993 are listed in Exhibit II-7.

Exhibit II-7

Leading Outsourcing Vendors, Europe 1993

Vendor	Estimated Revenues $m	Mkt Share(%)
EDS	410	12
Cap Gemini Sogeti	275	8
IBM ISSC	150	5
Digital	140	4
ICL/CFM	125	4

Source: INPUT

EDS has been very successful in Europe in 1992 and 1993 winning the KF contract in Scandinavia and the Inland Revenue contract in the U.K. The company has also established itself as one of the market leaders in Germany, and is now entering the Italian outsourcing market following its acquisition of S&M Group.

Overall, the major U.S. vendors have dominated the major outsourcing contracts in Europe with both CSC and Perot Systems winning several major deals. These vendors are winning contracts by virtue of their business re-engineering skills, for example the Europcar, KF and BhS contracts, and by virtue of their size, for example—the Inland Revenue and British Aerospace contracts. From the client's perspective, it is primarily the size of the prospective vendor's outsourcing operation and the size of their existing contracts that are important not the overall vendor revenues. Because outsourcing deals tend to be smaller, and for shorter periods in Europe than in the U.S., the major U.S.-based vendors have a significant advantage in targeting contracts valued in excess of $100 million. Accordingly, vendors such as EDS and Perot Systems tend to focus on the larger contracts, while most of the European vendors continue to concentrate on contracts in the $2 million to $50 million range.

IBM ISSC has been less successful in targeting these major contracts but has built up an enviable position in the manufacturing sector in France and Germany.

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III
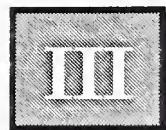
European Outsourcing Market Continues to Segment

A
Outsourcing Market Moves to Desktop Services and Business Operations

The outsourcing market continued to grow faster than any other market segment in Europe in 1993 and there are currently no signs of the dramatic reductions in market growth that have occurred elsewhere in the IT services market.

In the more advanced markets such as those of the U.K. and France, new types of outsourcing service such as desktop services, application management and business operations are fuelling market growth. In markets such as Germany and Italy that have been slow to adopt outsourcing, the outsourcing concept is growing in acceptance. The German outsourcing market continued to develop in 1993, and there are now signs that outsourcing is becoming more acceptable to companies in the manufacturing sector in Italy.

A forecast for the European outsourcing market over the period 1994 to 1999 is provided in Exhibit III-1.

Exhibit III-1

Outsourcing Market, Europe 1994-1999

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Platform Operations	750	23	930	11	1600
Applications Operations	1500	25	1900	20	4700
Total Systems Operations	2250	25	2800	18	6300
Desktop Services	300	30	400	27	1300
Network Management	420	19	500	15	1000
Applications Management	160	28	200	27	680
Total IS Outsourcing	3100	25	3900	19	9300
Business Operations	150	33	200	27	650
Total Outsourcing	3250	25	4100	20	10000
SAP Outsourcing	270	15	310	8	450

Source: INPUT

Platform operations remains an important component of the outsourcing market. However, mainframe-based platform operations contracts will become less significant in future as organisations increasingly use external vendors to manage their client/server operations and desktop services. At the same time, there is a growing trend to use outsourcing as a means of re-engineering IT support and not just reducing its cost.

Applications operations contracts will grow in importance. Some of these deals will explicitly require the vendor to undertake extensive system development as organisations try to derive greater business benefits from their IT investments. In other instances, the emphasis will be placed on transition outsourcing, where the vendor manages the legacy systems on behalf of the client.

The market for application management will grow rapidly, as organisations seek to reduce the cost of, and their own responsibility for, the maintenance of legacy applications.

In addition, a market for business operations is beginning to emerge in Europe. Indeed, the U.K. local government sector is arguably the most advanced world-wide in its use of business operations outsourcing. However, there are also signs of a business operations market emerging in the private sector, and both EDS and Andersen Consulting have won contracts of this type in Europe.

B
Country Market Breakdowns

Exhibit III-2 provides forecasts for the IS outsourcing market by country over the period 1994-1999. Neither business operations nor SAP outsourcing are included in the figures shown in this exhibit.

Exhibit III-2

IS Outsourcing Country Markets, Europe 1994-1999

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	3100	25	3900	19	9300
France	800	19	950	17	2100
Germany	320	23	400	20	1000
U.K.	1000	32	1350	19	3300
Italy	250	22	300	20	760
Sweden	200	23	240	22	630
Denmark	30	23	40	20	100
Norway	35	20	42	19	100
Finland	40	18	50	17	100
Netherlands	160	22	190	21	480
Belgium	80	19	95	20	240
Spain	55	18	65	19	150
Switzerland	70	20	85	19	200
Austria	20	20	23	18	55
Portugal	8	19	10	19	25
Greece	3	19	4	19	10
Ireland	10	30	15	26	45
Eastern Europe	15	35	22	32	90

Source: INPUT

Forecasts for each of the subsectors of IS outsourcing by country are listed in Exhibits III-3 to III-8.

OSMF

Exhibit III-3

Platform Operations Country Markets

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	750	23	930	11	1600
France	240	12	265	10	430
Germany	45	17	55	12	95
U.K.	220	45	320	10	520
Italy	60	15	67	12	120
Sweden	45	15	50	15	105
Denmark	7	15	8	13	15
Norway	11	15	12	12	22
Finland	13	15	15	12	25
Netherlands	35	15	40	14	80
Belgium	25	10	27	14	55
Spain	18	15	20	12	40
Switzerland	14	15	17	12	30
Austria	3	15	5	12	7
Portugal	2	15	2	15	5
Greece	1	15	1	15	2
Ireland	6	25	7	25	20
Eastern Europe	7	25	9	25	30

Source: INPUT

Exhibit III-4

Applications Operations Country Markets,
Europe 1994-1999

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	1500	25	1900	20	4700
France	360	21	440	19	1100
Germany	130	25	160	21	400
U.K.	550	30	720	21	1900
Italy	120	25	150	21	380
Sweden	95	25	120	22	320
Denmark	13	25	17	20	40
Norway	13	22	16	20	40
Finland	20	20	25	18	60
Netherlands	60	22	70	20	180
Belgium	45	22	55	22	150
Spain	15	22	20	22	55
Switzerland	40	20	50	18	110
Austria	8	20	10	18	25
Portugal	3	20	3	20	8
Greece	2	20	2	20	5
Ireland	3	50	4	30	15
Eastern Europe	5	50	8	40	40

Source: INPUT

OSMF

Exhibit III-5

Systems Operations Country Markets, Europe 1994-1999

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	2200	25	2800	18	6300
France	600	17	700	16	1500
Germany	170	23	210	19	500
U.K.	780	34	1000	18	2400
Italy	175	22	210	18	500
Sweden	140	22	170	20	430
Denmark	20	21	25	18	60
Norway	25	19	30	17	60
Finland	35	18	40	16	85
Netherlands	100	19	115	18	260
Belgium	70	18	85	20	200
Spain	35	18	40	17	90
Switzerland	55	19	65	17	140
Austria	10	19	15	16	30
Portugal	5	18	6	18	13
Greece	3	18	3	19	7
Ireland	8	33	12	27	37
Eastern Europe	12	35	15	33	70

Source: INPUT

Exhibit III-6

Desktop Services Country Markets

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	300	30	400	27	1300
France	45	30	55	28	190
Germany	45	30	60	25	180
U.K.	100	30	125	25	380
Italy	30	30	40	28	130
Sweden	25	30	35	30	130
Denmark	5	30	8	25	25
Norway	5	28	7	25	20
Finland	3	25	3	23	10
Netherlands	28	30	40	27	120
Belgium	4	35	5	30	20
Spain	3	50	4	32	17
Switzerland	7	35	10	30	35
Austria	3	28	4	25	12
Portugal	1	28	2	25	7
Greece	0	28	0	25	1
Ireland	1	28	2	25	7
Eastern Europe	2	40	3	35	15

Source: INPUT

OSMF

Exhibit III-7

Network Management Country Markets

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	420	19	500	15	1000
France	120	20	140	15	290
Germany	90	20	110	15	215
U.K.	110	20	135	15	270
Italy	30	15	35	17	75
Sweden	13	15	15	17	35
Denmark	3	15	3	17	7
Norway	3	17	4	17	10
Finland	4	15	5	17	12
Netherlands	13	17	15	17	35
Belgium	4	17	5	17	10
Spain	14	10	15	15	30
Switzerland	7	12	8	15	15
Austria	3	15	4	15	8
Portugal	2	15	3	15	5
Greece	1	15	1	15	1
Ireland	1	15	2	15	3
Eastern Europe	2	25	3	25	8

Source: INPUT

Exhibit III-8

Application Management Country Markets

	Europe $M 1993	Growth 93-94 %	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Europe	160	28	210	27	680
France	35	30	45	25	135
Germany	15	30	20	30	70
U.K.	55	30	67	30	250
Italy	15	25	18	25	55
Sweden	12	25	13	25	40
Denmark	3	25	5	27	12
Norway	3	24	3	22	·10
Finland	1	22	1	20	3
Netherlands	20	25	25	25	70
Belgium	2	25	3	23	8
Spain	3	25	5	25	15
Switzerland	4	25	5	25	15
Austria	1	25	2	25	5

Source: INPUT

C
Outsourcing Will Show Highest Growth in Public Sector

Exhibit III-9 provides a forecast for the European outsourcing market by industry. This forecast includes SAP outsourcing and business operations in addition to IS outsourcing.

Exhibit III-9

Industry Sector Breakdown, Europe 1994-1999

	Europe $M 1993	Europe $M 1994	Growth 94-99 %	Europe $M 1999
Government	700	1000	24	3000
-Local	330	450	29	1600
-Central	230	400	21	1100
Manufacturing	1220	1600	15	3200
-Discrete	710	1000	14	1900
-Process	510	570	18	1300
Financial Services	730	900	18	2100
-Banking&Finance	460	570	20	1400
-Insurance	270	330	14	650
Distribution	300	360	18	830
Transportation	70	120	23	330
Utilities	265	310	16	670
Other	260	130	22	360
Total Outsourcing	3500	4400	19	10000

Source: INPUT

There is no consistent pattern of outsourcing by industry sector across individual countries. However, the manufacturing sector in Europe has tended to be in the vanguard in the adoption of outsourcing. The manufacturing sector was the major user of IT outsourcing in Germany during 1993, and the Italian manufacturing sector is now beginning to adopt outsourcing.

In the U.K. the public sector is becoming the centre of activity for outsourcing vendors, many of whom have re-organised and added managed services (business operations) capability to address this opportunity. Governments elsewhere in Europe are also seeking ways of reducing their administrative expenditure, and the public sector will become an increasingly attractive outsourcing market across Europe.

However, industry sectors tend to have differing profiles of outsourcing service usage and usage of desktop services is becoming most evident within the financial services and process manufacturing sectors.

Exhibit III-10 lists the leading 25 vendors in Europe based on their 1993 outsourcing revenues.

Exhibit III-10

Leading Outsourcing Vendors, Europe 1993

Rank	Vendor	Estimated European Revenues 1993 $M	Estimated Market Share (%)1993
1	EDS	410	12
2	Cap Gemini Sogeti	275	8
3	IBM ISSC	150	5
4	Digital	140	4
5	ICL/CFM	125	4
6=	debis Systemhaus	110	3
6=	Sema Group	110	3
8	CSC	95	3
9=	AT&T Istel	90	3
9=	GSI	90	3
11	Finsiel	85	3
12=	Athesa	70	2
12=	Perot Systems	70	2
14	Telesystemes	65	2
15	Data Sciences	55	2
16	Sligos	50	2
17	Olivetti	47	1
18=	Alldata	45	1
18=	Andersen Consulting	45	1
20=	Capita Group	45	1
21	ITnet	37	1
22=	France Telecom	35	1
22=	SG2	35	1
24	WM-DATA	35	1
25=	AT&T Dataid	30	1
25=	Hewlett-Packard	30	1

Source: INPUT

EDS maintained its leadership position in the European outsourcing market in 1993, and seems certain to retain this position in 1994. In 1993, EDS continued its strategy of growth by acquisition in the European outsourcing market acquiring S&M Group in Italy. S&M Group has a background in application software products for the banking sector and EDS will use the company's industry knowledge in an endeavour to create outsourcing opportunities in this sector.

EDS also had a successful year in establishing itself as the major supplier to UK central government winning the Inland Revenue contract and making a successful bid for the DVOIT agency on its privatisation.

Cap Gemini Sogeti, especially Hoskyns, was unable to win the major contracts such as those with the Inland Revenue and British Aerospace in competion with major U.S. vendors such as EDS and CSC. Consequently, the company has concentrated on developing its service offerings for application management and desktop services.

ICL/CFM had a very successful year in 1993 achieving revenue growth of 76%. IBM ISL, now renamed IBM ISSC, had a relatively unsuccessful year in the U.K. in 1993, but IBM continued its success in the French outsourcing market, and began to establish itself as one of the leading outsourcing vendors in Germany and Italy.

IV
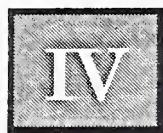
Country Markets

A
Privatisation Programme Promises Boost to Outsourcing in France

The outsourcing market in France remains very competitive with Axone continuing to offer a very price-competitive platform operations service. However, there are potentially new opportunities arising out of the introduction of new services and the Government's privatisation programme. In particular, the privatisation programme will generate a situation where a number of major organisations need to re-assess their business practices, but have little capital available for investment in developing new information systems. This creates a favourable environment for outsourcing vendors by creating both applications operations and transition outsourcing opportunities.

Exhibit IV-1 provides a forecast of the outsourcing market in France.

Exhibit IV-1

Outsourcing Market France, 1994-1999

IV-2	France 1993 FFm1993	Growth 93-94 %	France 1994 FFm1994	Growth 94-99 %	France 1999 FFm 1999
Platform Operations	1400	12	1570	10	2500
Applications Operations	2150	21	2600	19	6200
Total Systems Operations	3550	17	4170	16	8700
Desktop Services	250	30	325	28	1100
Network Management	700	20	840	15	1700
Applications Management	200	30	260	25	800
Total IS Outsourcing	4700	19	5600	17	12300

Source: INPUT

In addition, there is increasing demand in France for desktop services and applications management. Cap Gemini Sogeti has introduced offerings in both these disciplines in France, co-ordinating its outsourcing activities with those of Hoskyns in the U.K. Many other vendors are also now targeting desktop services including Sligos and Thomainfor.

Exhibit IV-2 provides a forecast for France broken down by industry sector.

Exhibit IV-2

Industry Sector Analysis Outsourcing Market France, 1994-1999

	France FFm 1993	France FFm 1994	Growth 94-99 %	France FFm 1999
Government	425	560	23	1550
-Local	190	280	25	850
-Central	235	280	20	700
Manufacturing	1500	1800	15	3600
-Discrete	940	1120	14	2150
-Process	560	670	17	1450
Financial Services	990	1290	18	2900
-Banking&Finance	660	840	18	1920
-Insurance	3230	450	17	980
Distribution	700	780	12	1380
Transportation	235	280	15	560
Utilities	330	390	22	1100
Other	560	500	20	1250
Total Outsourcing	4700	5595	17	12300

Source: INPUT

The government sector has so far shown few opportunities for outsourcing vendors in France. However, this is expected to change as the Government evaluates outsourcing IT functions in central government departments and encourages IT outsourcing within local government.

The financial services sector makes considerable use of processing services such as card processing and funds transfer from vendors such as Sligos and Axime, and there is potential for these types of service to develop into business operations contracts involving a wider range of billing and revenue collection activities.

The financial services sector will also be one of the leading sectors in the adoption of desktop services.

Exhibit IV-3 lists the leading outsourcing vendors in France.

Exhibit IV-3

Leading Outsourcing Vendors France, 1993

Vendor	France FFm 1993	Mkt Share(%) 1993
EDS	820	17
GSI	370	8
Axone	360	8
Telesystemes	360	8
Athesa	355	8
Cap Gemini Sogeti	300	6
Sligos	300	6
Perot Systems	200	4
SG2	200	4
France Telecom	180	4
AT&T Dataid	180	4
Total listed	3625	77
Total market	4700	100

Source: INPUT

Athesa France is a joint venture between Groupe Bull and CISI providing Groupe Bull with a major IBM mainframe datacentre management capability. Athesa France is just one subsidiary of Athesa International.For example, additional subsidiaries have been established in the U.K. and Italy.

B

EDS and IBM Become Established in Germany

Outsourcing began to become established in Germany in 1992, and this progress has been maintained with further growth in outsourcing during 1993. In particular IBM Systems and

Networks, entered the market and began to compete strongly with EDS and debis Systemhaus in the latter half of 1993.

Exhibit IV-4 provides a forecast of the outsourcing market in Germany.

Exhibit IV-4

Outsourcing Market Germany , 1994-1999

	Germany DMm 1993	Growth 93-94 %	Germany DMm 1994	Growth 94-99 %	Germany DMm 1999
Platform Operations	80	17	95	12	165
Applications Operations	220	25	275	21	710
Total Systems Operations	300	23	370	19	875
Desktop Services	80	30	105	25	320
Network Management	155	20	185	15	370
Applications Management	25	30	33	30	120
Total IS Outsourcing	560	24	690	20	1690
SAP Outsourcing	470	15	540	8	800

Source: INPUT

A forecast for business operations outsourcing has not been provided for Germany since the market is currently very small. However, there is potential for business operations outsourcing here, as elsewhere in Europe, as is demonstrated by EDS' contract with Leuna-Werne AG to manage their finance department in addition to providing IS outsourcing services.

INPUT classifies SAP outsourcing as a processing service rather than a form of outsourcing. Accordingly the market forecast for SAP outsourcing is shown separately and this figure has not been consolidated into the European outsourcing forecast. However SAP outsourcing is widely regarded as a form of outsourcing within Germany.

In recognition of this, the German industry sector breakdown includes revenues from SAP outsourcing, and the vendor rankings for Germany include each vendor's SAP outsourcing revenues where appropriate.

Historically, SAP outsourcing was concerned with providing access to SAP software to small to medium-sized organisations that could not afford to purchase the mainframe required. However, the nature of the outsourcing requirement around SAP products is now beginning to change as the R/3 product begins to replace, or complement, organisations' use of R/2.

This creates a threat and additional opportunities for vendors. Since medium-sized enterprises no longer require access to an expensive mainframe, they are no longer dependent on the bureaus offering R/2 based services. However, these organisations have traditionally been dependent on external vendors for their IT services and will tend to lack the skills required to support R/3, especially if this is to be implemented using a client/server architecture. Accordingly, while the SAP bureaus may lose some of their traditional client base on their mainframe based services, these same organisations may need extensive assistance in implementing and managing R/3.

In addition, large organisations downsizing from R/2 to R/3 will create a transition outsourcing market where external vendors are required to take over the operation of existing R/2 services. This may also create follow-on opportunities for distributed systems management of the R/3 environment.

Exhibit IV-5 provides a forecast for Germany broken down by industry sector.

Exhibit IV-5

Industry Sector Analysis Outsourcing Market Germany, 1994-1999

	Germany DMm 1993	Germany DMm 1994	Growth 94-99 %	Germany DMm 1999
Government	50	75	38	370
-Local	20	37	46	250
-Central	30	37	27	120
Manufacturing	455	500	12	900
-Discrete	300	330	10	550
-Process	155	170	15	350
Financial Services	310	390	10	620
-Banking&Finance	165	210	12	370
-Insurance	145	180	6	250
Distribution	50	75	19	175
Transportation	20	35	22	100
Utilities	100	130	15	300
Other	40	20		25
Total Outsourcing	1030	1230	15	2485

Source: INPUT

Manufacturing remains, as in 1992, the most important industry sector for outsourcing. The outsourcing contracts of IBM Systeme und Netze and EDS are dominated by manufacturing organisations. Many of these organisations are experiencing financial problems, brought about by growing competition from U.S. and Japanese manufacturers, and the recession in their home market.

A new opportunity is emerging in the public sector, which is now facing strong pressure to increase its efficiency. In particular, there are indications that the regional energy authorities may be privatised. Such a move would lead to a significant increase in their IT expenditures, and would create opportunities for outsourcing vendors.

Exhibit IV-6 lists the leading outsourcing vendors in Germany.

Exhibit IV-6

Leading Outsourcing Vendors Germany, 1993

	Vendor	Germany DMm 1993	Mkt Share(%) 1993
1	debis Systemhaus	170	17
2	EDS	160	16
3	Alldata	75	7
4	IBM Systeme und Netze	47.	5
5	tds	45	4
6	Digital	40	4
7	AC Service	35	3
8	CSC	20	2
8	Orga	20	2
8	BB-Data	20	2
	Total listed	632	61
	Total market	1,030	100

Source: INPUT

The principal vendors targeting systems operations in Germany are debis Systemhaus, EDS and IBM ISSC. It is difficult for many of the medium-sized vendors to compete with these organisations for the larger systems operations contracts where financial re-engineering is one of the principal decision criteria.

Accordingly, many of the medium-sized vendors are developing their R/3 outsourcing capability and their capability to provide sector-specific support for medium-sized organisations. Popular sectors for implementing this approach are the financial services and public sectors.

In addition to targeting systems operations, debis Systemhaus has now begun to target applications management opportunities in Germany.

C
The Public Sector Becomes the Major Target in the U.K.

During 1993, many vendors refocused their efforts on targeting the public sector. Major opportunities continued to emerge in local government, where organisations such as Data Sciences and ITnet began to assemble business operations capabilities to complement their traditional IT outsourcing offerings. This capability is becoming critical as local authorities respond to the requirements of Compulsory Competitive Tendering and outsource their exchequer functions alongside their IT. Vendors such as ICL/CFM and the Capita Group that are primarily active in the local government sector showed exceptionally high outsourcing growth in 1993, and this high level of growth is expected to continue for at least 1994 and 1995.

The first contracts from the Government's market testing programme emerged towards the end of 1993. Market testing is aimed at improving the efficiency of central government departments. EDS was particularly successful, winning the Inland Revenue contract and successfully bidding for the purchase of DVOIT (the former IT arm of the Driver and Vehicle Licensing Authority). The market testing programme will maintain its momentum during 1994 and 1995.

Compulsory Competitive Tendering and Market Testing will generate significant growth in the UK outsourcing market during 1994 and 1995. However, vendors need to take advantage of this window of opportunity since a change in government may result in these initiatives being cancelled after the next election.

Exhibit IV-7 provides a forecast for the outsourcing market in the United Kingdom.

Exhibit IV-7

Outsourcing Market United Kingdom, 1994-1999

	U.K. £m 1993	Growth 93-94 %	U.K. £m 1994	Growth 94-99 %	U.K. £m 1999
Platform Operations	150	45	220	10	350
Applications Operations	375	30	490	21	1,260
Total Systems Operations	525	34	710	18	1,600
Desktop Services	65	30	85	25	260
Network Management	75	20	90	15	180
Applications Management	35	30	45	30	170
Total IS Outsourcing	700	32	925	19	2,200
Business Operations	70	36	95	30	350
Total Outsourcing	770	32	1020	20	2,600

Source: INPUT

A forecast for business operations has been included for the U.K. The bulk of the current business operations revenues derive from local government and this situation is expected to continue for the remainder of the forecast period. However, Andersen Consulting and EDS are targeting business operations in the private sector, and Andersen Consulting has been particularly successful in winning contracts to administer the accounting functions of oil company subsidiaries operating in the North Sea. Accordingly, business operations is beginning to emerge as a realistic opportunity for vendors in the U.K. outside the public sector.

Other areas expected to exhibit strong growth are desktop services and applications management.

Growth in the platform operations segment is expected to decline as organisations place a growing emphasis on using outsourcing to re-engineer their IT and not just as a means of cost reduction and capital injection. However, some large contracts will commence with a platform operations service before moving on to application operations subsequently. For example the first phase of the Inland Revenue contract is essentially limited to platform operations.

OSMF

Exhibit IV-8 provides a forecast for the United Kingdom broken down by industry sector.

Exhibit IV-8

Industry Sector Analysis Outsourcing Market
United Kingdom , 1994-1999

	U.K. £M 1993	U.K. £M 1994	Growth 94-99 %	U.K. £M 1999
Government	270	395	22	1,100
-Local	130	170	27	560
-Central	70	150	20	370
-Health	70	75	15	150
Manufacturing	240	365	16	770
-Discrete	120	230	15	460
-Process	120	135	18	310
Financial Services	120	140	24	400
-Banking&Finance	85	100	25	305
-Insurance	35	40	20	100
Distribution	45	55	25	170
Transportation	0	10	40	55
Utilities	50	50	10	80
Other	45	5	25	15
Total Outsourcing	770	1,020	20	2575

Souce: INPUT

The British Aerospace contract will ensure that the discrete manufacturing sector remains the principal sector for outsourcing in 1994. However, much of the new activity in the desktop services and application management segments of the market is being generated within the financial services and process manufacturing sectors.

The utilities sector was formerly the source of considerable transition outsourcing activity. However, in the U.K., this sector

has now largely completed its restructuring and so is expected to show lower levels of activity over the next few years

Exhibit IV-9 lists the leading outsourcing vendors in the U.K.

Exhibit IV-9

Leading Outsourcing Vendors United Kingdom, 1993

Vendor	U.K. £M 1993	Mkt Share(%) 1993
Hoskyns	100	14
ICL/CFM	86	12
EDS	65	9
AT&T Istel	60	9
Sema Group	60	9
Digital	45	6
Data Sciences	37	5
Capita Group	30	4
Andersen Consulting	27	4
Perot Systems	25	4
CSC	25	4
ITnet	25	4
Total listed	585	76
Total market	770	100

Source: INPUT

Hoskyns remained the market leader in the outsourcing market in 1993. The company has continued to be successful in winning systems operations contracts. However, the company's emphasis is now on developing revenue streams from desktop services and application management.

Despite these sucesses, Hoskyns' leadership position in the U.K. is under threat in 1994 and 1995 from two directions. Firstly, the company has been slow to capitalise on the opportunities emerging in local government, and is in danger of being

overtaken by ICL/CFM which has built up a strong position in the local government market. Largely as a consequence of its strength in local government, ICL/CFM achieved revenue growth in 1993 of 76%.

Secondly, the major outsourcing contracts such as those for the Inland Revenue and British Aerospace are being won by the U.S. vendors EDS and CSC which can demonstrate the ability to manage contracts valued in excess of $1 billion. The impact of these contracts is not yet visible in the companies' 1993 revenues.

IBM ISSC was relatively unsuccessful in the U.K. outsourcing market in 1993 and the company has yet to reach a top ten ranking here. Unlike in France and Germany, IBM ISSC was relatively late in entering the U.K. outsourcing market, and has so far not demonstrated the ability to match its ambition to become one of the leading vendors.

D

Italian Market Poised for Growth

Much of the outsourcing activity in Italy to date, has centred around Finsiel's contracts in the public sector and the processing centres serving consortia of Italian banks. However, the outsourcing market was stimulated in 1993 by the entry of a number of major vendors. Although the outsourcing revenues of these vendors in Italy remain low at present, the prospects for outsourcing growth are strong.

The forecast for the Italian outsourcing market is shown in Exhibit IV-10.

Exhibit IV-10

Outsourcing Market Italy, 1994-1999

IV-14	Italy Lbn 1993	Growth 93-94 %	Italy Lbn 1994	Growth 94-99 %	Italy Lbn 1999
Platform Operations	100	15	115	12	200
Applications Operations	200	25	250	21	650
Total Systems Operations	300	22	365	18	850
Desktop Services	50	30	65	28	220
Network Management	50	15	60	17	130
Applications Management	25	25	30	25	95
Total IS Outsourcing	425	22	520	20	1300

Source: INPUT

The industry sectors that offer the highest levels of outsourcing potential are:

- Public sector

- Banking

- Manufacturing.

The public sector in Italy is facing considerable pressure to reduce cost, and, at the same time, is being decentralized to transfer operational service responsibility to the local level. Although it is difficult to forecast at this early stage, there may be potential for business operations outsourcing in Italy arising out of this major re-organization of operating responsibility.

The banking sector remains a major target for outsourcing companies in Italy. However, at present, many of the banks show a preference for taking a shareholding in their outsourcing vendor and limiting the outsourcing vendor's customer base within their sector.

So far, the major manufacturing companies in Italy have not tended to use outsourcing as a means of cost reduction and capital injection to the same extent as their counterparts in Germany and the U.K.. However, IBM ISSC has won a number of contracts in the manufacturing sector here in 1993 and early 1994 and the level

of activity in the manufacturing sector is forecast to increase over the next few years.

Exhibit IV-11 lists the leading outsourcing vendors in Italy.

Exhibit IV-11

Leading Outsourcing Vendors, Italy 1993

Vendor	Italy LBn 1993	Mkt Share(%) 1993
Finsiel	140	33
Olivetti	50	12
IBM ISSC	20	5
Athesa	15	4
Digital	12	3
Total listed	237	56
Total market	425	100

Source: INPUT

Finsiel is the market leader in Italy. The company has been particularly successful in targeting the public sector and is currently restructuring its organisation to increase its outsourcing capability. The company's Gisiel subsidiary targets outsourcing opportunities in the manufacturing sector.

Finsiel's market leadership is now being challenged by EDS and IBM ISSC. EDS strengthened its position in the Italian outsourcing market in 1993 with the acquisition of the S&M Group, and is now bidding for contracts in the banking and manufacturing sectors.

In addition, Andersen Consulting is active in the financial services sector and GSI is targeting the Italian outsourcing market .

E
Sweden

The forecast for the outsourcing market in Sweden is shown in Exhibit IV-12.

Exhibit IV-12

Outsourcing Market Sweden, 1994-1999

IV-12	Sweden SKm 1993	Growth 93-94 %	Sweden SKm 1994	Growth 94-99 %	Sweden SKm 1999
Platform Operations	380	15	440	15	900
Applications Operations	800	25	1000	22	2700
Total Systems Operations	1200	22	1450	20	3600
Desktop Services	220	30	300	30	1100
Network Management	110	15	130	17	280
Applications Management	90	25	115	25	350
Total IS Outsourcing	1600	23	2000	22	5300

Source: INPUT

Exhibit IV-13 lists the leading outsourcing vendors in Sweden.

Exhibit IV-13

Leading Outsourcing Vendors Sweden, 1993

Vendor	Sweden SKm 1993	Mkt Share(%) 1993
Cap Gemini Sogeti	500	31
EDS	350	22
WM-Data	250	16
IBM	200	12
Sema Group	140	9
Total listed	1,440	90
Total market	1,600	100

Source: INPUT

F
Denmark

The forecast for the outsourcing market in Denmark is shown in Exhibit IV-14.

Exhibit IV-14

Outsourcing Market Denmark, 1994-1999

	Denmark DKm 1993	Growth 93-94 %	Denmark DKm 1994	Growth 94-99 %	Denmark DKm 1999
Platform Operations	50	15	58	13	110
Applications Operations	90	25	110	20	280
Total Systems Operations	140	21	170	18	390
Desktop Services	40	30	55	25	160
Network Management	20	15	23	17	50
Applications Management	20	25	25	27	85
Total IS Outsourcing	220	23	270	20	680

Source: INPUT

Exhibit IV-15 lists the leading outsourcing vendors in Denmark.

Exhibit IV-15

Leading Outsourcing Vendors Denmark, 1993

Vendor	Denmark DKm 1993	Mkt Share(%) 1993
PBS	45	20
JDC	35	16
Olivetti	15	7
OK Data	15	7
danNet	15	7
Total listed	125	57
Total market	220	100

Source: INPUT

G
Norway

The forecast for the outsourcing market in Norway is shown in Exhibit IV-16.

Exhibit IV-16

Outsourcing Market Norway, 1994-1999

	Norway NKm 1993	Growth 93-94 %	Norway NKm 1994	Growth 94-99 %	Norway NKm 1999
Platform Operations	80	15	90	12	160
Applications Operations	100	22	125	20	300
Total Systems Operations	180	19	215	17	460
Desktop Services	40	28	50	25	155
Network Management	25	17	30	17	65
Applications Management	20	24	25	22	67
Total IS Outsourcing	265	20	320	19	750

Source: INPUT

Exhibit IV-17 lists the leading outsourcing vendors in Norway.

Exhibit IV-17

Leading Outsourcing Vendors Norway, 1993

Vendor	Norway NKm 1993	Mkt Share(%) 1993
Fellesdata	50	19
WM-Data	40	15
NIT	25	9
Teamco	20	8
Digital	15	6
Total listed	150	57
Total market	265	100

Source: INPUT

H
Finland

The forecast for the outsourcing market in Finland is shown in Exhibit IV-18.

Exhibit IV-18

Outsourcing Market Finland, 1994-1999

	Finland FMm 1993	Growth 93-94 %	Finland FMm 1994	Growth 94-99 %	Finland FMm 1999
Platform Operations	75	15	85	12	150
Applications Operations	120	20	145	18	330
Total Systems Operations	195	18	230	16	480
Desktop Services	15	25	20	23	55
Network Management	25	15	30	17	65
Applications Management	5	22	6	20	15
Total IS Outsourcing	240	18	280	17	600

Source: INPUT

Exhibit IV-19 lists the leading outsourcing vendors in Finland.

Exhibit IV-19

Leading Outsourcing Vendors Finland, 1993

Vendor	Finland FMm 1993	Mkt Share(%)1993
Tietotehdas	45	19
EDS	35	15
Paakupunk	30	13
Progmatic	25	10
Cap Gemini Sogeti	25	10
Total listed	160	67
Total market	240	100

Source: INPUT

OSMF

I
Netherlands

The forecast for the outsourcing market in the Netherlands is shown in Exhibit IV-20.

Exhibit IV-20

Outsourcing Market Netherlands, 1994-1999

	Netherlands Dfl m1993	Growth 93-94%	Netherlands Dfl m1994	Growth 94-99%	Netherlands Dfl m1999
	1.94		1.94		1.94
Platform Operations	70	15	80	14	160
Applications Operations	115	22	140	20	350
Total Systems Operations	185	19	220	18	500
Desktop Services	55	30	70	27	240
Network Management	25	17	30	17	65
Applications Management	35	25	45	25	135
Total IS Outsourcing	300	22	365	21	940

Source: INPUT

Exhibit IV-21 lists the leading outsourcing vendors in the Netherlands.

Exhibit IV-21

Leading Outsourcing Vendors Netherlands, 1993

Vendor	Netherlands Dflm 1993	Mkt Share(%) 1993
CSC	40	13
EDS	35	12
Cap Gemini Sogeti	25	8
CMG	25	8
debis Systemhaus	20	7
Total listed	145	48
Total market	300	100

Source: INPUT

J

Belgium

The forecast for the outsourcing market in Belgium is shown in Exhibit IV-22.

Exhibit IV-22

Outsourcing Market Belgium, 1994-1999

	Belgium BFm 1993	Growth 93-94 %	Belgium BFm 1994	Growth 94-99 %	Belgium BFm 1999
Platform Operations	900	10	1,000	14	1900
Applications Operations	1,650	22	2,000	22	5,400
Total Systems Operations	2,550	18	3,000	20	7,300
Desktop Services	140	35	190	30	700
Network Management	130	17	150	17	330
Applications Management	80	25	100	23	280
Total IS Outsourcing	2900	19	3400	20	8700

Source: INPUT

Exhibit IV-23 lists the leading outsourcing vendors in Belgium.

Exhibit IV-23

Leading Outsourcing Vendors Belgium, 1993

Vendor	Belgium BFm 1993	Mkt Share(%) 1993
CSC	850	29
Cegeka	300	10
Digital	200	7
EDS	190	7
Hewlett-Packard	75	3
Total listed	1,615	56
Total market	2,900	100

Source: INPUT

OSMF

K
Spain

The forecast for the outsourcing market in Spain is shown in Exhibit IV-24.

Exhibit IV-24

Outsourcing Market Spain, 1994-1999

	Spain Ptas m 1993	Growth 93-94 %	Spain Ptas m 1994	Growth 94-99 %	Spain Ptas m 1999
Platform Operations	2,600	15	3,000	12	5,300
Applications Operations	2,300	22	2,800	22	7,600
Total Systems Operations	4,900	18	5,800	17	12,900
Desktop Services	400	50	600	32	2400
Network Management	2000	10	2200	15	4400
Applications Management	500	25	630	25	1900
Total IS Outsourcing	7800	18	9200	19	21600

Source: INPUT

Exhibit IV-25 lists the leading outsourcing vendors in Spain.

L
Switzerland

The forecast for the outsourcing market in Switzerland is shown in Exhibit IV-26.

Exhibit IV-26

Outsourcing Market Switzerland, 1994-1999

	Switzerland SFm 1993	Growth 93-94 %	Switzerland SFm 1994	Growth 94-99 %	Switzerland SFm 1999
Platform Operations	20	15	23	12	40
Applications Operations	55	20	60	18	150
Total Systems Operations	75	19	90	17	190
Desktop Services	10	35	15	30	50
Network Management	10	12	11	15	23
Applications Management	5	25	6	25	20
Total IS Outsourcing	100	20	120	19	280

Source: INPUT

Exhibit IV-27 lists the leading outsourcing vendors in Switzerland.

Exhibit IV-27

Leading Outsourcing Vendors Switzerland, 1993

Vendor	Switzerland SFm 1993	Mkt Share(%) 1993
GSI	13	13
IBM ISSC	12	12
Telekurs	12	12
Digital	10	10
AC Service	7	7
Total listed	54	54
Total market	100	100

Source: INPUT

M
Austria

The forecast for the outsourcing market in Austria is shown in Exhibit IV-28.

Exhibit IV-28

Outsourcing Market Austria 1994-1999

	Austria Schm 1993	Growth 93-94 %	Austria Schm 1994	Growth 94-99 %	Austria Schm 1999
Platform Operations	40	15	45	12	80
Applications Operations	100	20	120	18	275
Total Systems Operations	140	19	165	16	355
Desktop Services	35	28	45	25	140
Network Management	40	15	45	15	95
Applications Management	15	25	20	25	60
Total IS Outsourcing	230	20	280	18	640

Source: INPUT

Exhibit IV-29 lists the leading outsourcing vendors in Austria.

Exhibit IV-29

Leading Outsourcing Vendors Austria, 1993

Vendor	Austria Schm 1993	Mkt Share(%) 1993
Data Service	30	13
GRZ	25	11
Hewlett-Packard	20	9
Management Data	15	7
IBM ISSC	12	5
Total listed	102	44
Total market	230	100

Source: INPUT

OSMF

N
Portugal

The forecast for the outsourcing market in Portugal is shown in Exhibit IV-30.

Exhibit IV-30

Outsourcing Market Portugal 1994-1999

	Portugal Escm 1993	Growth 93-94 %	Portugal Escm 1994	Growth 94-99 %	Portugal Escm 1999
Platform Operations	100	15	115	15	230
Applications Operations	150	20	180	20	450
Total Systems Operations	250	18	300	18	680
Desktop Services	70	28	90	25	270
Network Management	125	15	140	15	290
Applications Management	0		0		0
Total IS Outsourcing	445	19	530	19	1200

Source: INPUT

O
Greece

The forecast for the outsourcing market in greece is shown in Exhibit IV-31.

Exhibit IV-31

Outsourcing Market Greece 1994-1999

	Greece Dram 1993	Growth 93-94 %	Greece Dram 1994	Growth 94-99 %	Greece Dram 1999
Platform Operations	200	15	230	15	460
Applications Operations	460	20	550	20	1,400
Total Systems Operations	660	18	780	19	1,800
Desktop Services	60	28	80	25	230
Network Management	130	15	150	15	300
Applications Management	0		0		0
Total IS Outsourcing	850	19	1,000	19	2,400

Source: INPUT

P

Ireland

The forecast for the outsourcing market in Ireland is shown in Exhibit IV-32.

Exhibit IV-32

Outsourcing Market Ireland 1994-1999

	Ireland IR£m 1993	Growth 93-94 %	Ireland IR£m 1994	Growth 94-99 %	Ireland IR£m 1999
Platform Operations	4	25	5	25	15
Applications Operations	2	50	3	30	12
Total Systems Operations	6	33	8	27	25
Desktop Services	1	28	1	25	4
Network Management	1	15	1	15	2
Applications Management	0		0		0
Total IS Outsourcing	8	30	10	26	35

Source: INPUT

INFORMATION SYSTEMS OUTSOURCING MARKET—EUROPE, 1994-1999

INPUT

Q

Eastern Europe

The forecast for the outsourcing market in Eastern Europe is shown in Exhibit IV-33.

Exhibit IV-33

Outsourcing Market Eastern Europe1994-1999

	Eastern Europe $m 1993	Growth 93-94 %	Eastern Europe $m 1994	Growth 94-99 %	Eastern Europe $m 1999
Platform Operations	7	25	10	25	30
Applications Operations	5	50	8	40	40
Total Systems Operations	12	35	15	33	70
Desktop Services	2	40	3	35	15
Network Management	2	25	3	25	8
Applications Management	0		0		0
Total IS Outsourcing	16	35	22	32	90

Source: INPUT

IV-36

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OSMF

A
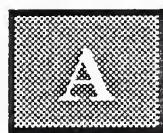
Market Forecasts in Local Currencies

Exhibits A-1 through A-17 present detailed IS outsourcing market forecasts for individual countries in their local currencies.

Exhibit A-1

Outsourcing Services Market, User Expenditure Forecast by Delivery Mode and Submode Austria, 1994-1999

Delivery Modes	Sch Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	140	19	166	197	229	267	316	357	17
- Platform Operations	40	15	46	52	59	67	76	82	12
- Application Operations	100	20	120	145	170	200	240	275	18
Desktop Services	35	29	45	55	70	90	115	140	25
Network Management	40	15	46	53	61	70	81	93	15
Application Management	15	27	19	24	30	37	46	57	25
Total IS Outsourcing	230	20	275	330	390	465	560	645	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source: INPUT

Exhibit A-2

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Belgium, 1994-1999

A-2	BF Millions								
Delivery Modes	**1993**	**93-94 Growth (%)**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**94-99 CAGR (%)**
Systems Operations	2550	17	2990	3500	4150	5000	6050	7350	20
- Platform Operations	900	10	990	1100	1250	1450	1650	1900	14
- Application Operations	1650	21	2000	2400	2900	3550	4400	5450	22
Desktop Services	140	36	190	245	315	410	535	700	30
Network Management	130	15	150	180	215	250	300	340	18
Application Management	80	25	100	130	160	200	250	310	25
Total IS Outsourcing	2900	18	3430	4060	4840	5860	7140	8700	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-3

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Denmark, 1994-1999

	DK Millions								
Delivery Modes	**1993**	**93-94 Growth (%)**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**94-99 CAGR (%)**
Systems Operations	140	21	170	205	245	290	335	385	18
- Platform Operations	50	10	55	65	75	85	95	105	14
- Application Operations	90	28	115	140	170	205	240	280	19
Desktop Services	40	30	52	65	85	105	130	160	25
Network Management	20	15	23	28	33	38	44	50	17
Application Management	20	25	25	32	41	52	66	83	27
Total IS Outsourcing	220	23	270	330	400	490	580	680	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-4

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Finland, 1994-1999

Delivery Modes	FM Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	195	18	230	265	305	350	405	480	16
- Platform Operations	75	13	85	95	105	115	130	150	12
- Application Operations	120	21	145	170	200	235	275	330	18
Desktop Services	15	27	19	23	28	34	42	53	23
Network Management	25	16	29	34	40	46	54	63	17
Application Management	5	20	6	7	8	10	12	15	20
Total IS Outsourcing	240	19	285	330	380	440	515	610	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-5

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode France, 1994-1999

Delivery Modes	FF Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	3550	18	4180	4690	5370	6180	7230	8730	16
- Platform Operations	1400	13	1580	1610	1720	1860	2050	2520	10
- Application Operations	2150	21	2600	3080	3650	4320	5180	6210	19
Desktop Services	250	30	325	415	530	675	870	1120	28
Network Management	700	20	840	970	1120	1300	1500	1690	15
Application Management	200	30	260	320	400	500	630	790	25
Total IS Outsourcing	4700	19	5600	6400	7400	8650	10250	12350	17

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-6
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Germany, 1994-1999

Delivery Modes	DM Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	300	25	375	455	550	640	745	875	18
- Platform Operations	80	25	100	110	125	135	145	160	10
- Application Operations	220	25	275	345	425	505	600	715	21
Desktop Services	80	31	105	135	170	210	255	315	25
Network Management	155	19	185	215	250	290	330	375	15
Application Management	25	32	33	43	57	74	96	123	30
Total IS Outsourcing	560	25	700	850	1025	1215	1425	1690	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-7
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Greece, 1994-1999

Delivery Modes	Dra Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	660	12	740	840	950	1080	1210	1360	13
- Platform Operations	400	13	450	510	580	660	740	830	13
- Application Operations	260	12	290	330	370	420	470	530	13
Desktop Services	60	17	70	85	105	130	155	190	22
Network Management	130	27	165	210	270	345	425	530	26
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	850	18	1000	1150	1350	1550	1800	2100	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-8

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Ireland, 1994-1999

Delivery Modes	IP Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	6	33	8	10	13	16	21	26	26
- Platform Operations	4	25	5	6	8	10	12	15	25
- Application Operations	2	50	3	4	5	7	9	11	28
Desktop Services	1	0	1	1	2	2	3	4	30
Network Management	1	0	1	1	2	2	2	2	17
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	8	25	10	13	16	20	25	32	26

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-9

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Italy, 1994-1999

Delivery Modes	Lira Billions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	300	22	365	420	495	595	710	850	18
- Platform Operations	100	15	115	120	125	145	160	200	12
- Application Operations	200 .	25	250	300	370	450	550	650	21
Desktop Services	50	30	65	85	110	140	180	225	28
Network Management	50	20	60	70	80	95	110	125	16
Application Management	25	24	31	36	43	54	69	87	23
Total IS Outsourcing	430	21	520	610	730	880	1070	1290	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-10

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Netherlands, 1994-1999

Delivery Modes	Dfl Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	185	19	220	260	300	355	425	505	18
- Platform Operations	70	14	80	90	100	115	135	155	14
- Application Operations	115	22	140	170	200	240	290	350	20
Desktop Services	55	31	72	90	115	145	185	235	27
Network Management	25	20	30	35	40	45	55	65	17
Application Management	35	26	44	55	70	85	105	135	25
Total IS Outsourcing	300	22	365	440	525	630	770	940	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-11

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Norway, 1994-1999

Delivery Modes	NK Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	180	17	210	245	285	335	390	460	17
- Platform Operations	80	13	90	100	110	125	140	160	12
- Application Operations	100	20	120	145	175	210	250	300	20
Desktop Services	40	25	50	65	80	100	125	160	26
Network Management	25	16	29	33	39	46	54	64	17
Application Management	20	25	25	30	35	45	55	65	21·
Total IS Outsourcing	265	19	315	375	440	525	625	750	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-12

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Portugal, 1994-1999

Delivery Modes	Esc Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	850	19	1010	1190	1420	1700	2010	2310	18
- Platform Operations	350	16	405	465	540	630	725	810	15
- Application Operations	500	21	605	725	880	1070	1285	1500	20
Desktop Services	250	28	320	400	505	640	800	975	25
Network Management	125	16	145	170	200	235	265	290	15
Application Management	400	15	460	534	619	718	815	925	15
Total IS Outsourcing	1625	19	1935	2295	2745	3295	3890	4500	18

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-13

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Spain, 1994-1999

Delivery Modes	Ptas Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	4,900	18	5,800	6,750	7,800	9,150	10,850	12,750	17
- Platform Operations	2,600	15	3,000	3,350	3,700	4,150	4,700	5,250	12
- Application Operations	2,300	22	2,800	3,400	4,100	5,000	6,150	7,500	22
Desktop Services	400	50	600	790	1,030	1,365	1,820	2,410	32
Network Management	2,000	10	2,200	3,100	3,900	5,000	6,300	7,700	28
Application Management	500	20	600	750	950	1,200	1,500	1,900	26
Total IS Outsourcing	7,800	18	9,200	11,400	13,700	16,700	20,500	24,800	22

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-14

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Sweden, 1994-1999

Delivery Modes	SK Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	1180	22	1435	1710	2040	2430	2930	3565	20
- Platform Operations	380	14	435	500	570	650	750	875	15
- Application Operations	800	25	1000	1210	1470	1780	2180	2690	22
Desktop Services	220	30	285	370	475	615	800	1050	30
Network Management	60	17	70	80	95	115	130	150	16
Application Management	110	14	125	145	170	205	240	280	18
Total IS Outsourcing	1570	22	1915	2305	2780	3365	4100	5045	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values. Source: INPUT

OSMF

Exhibit A-15

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Switzerland, 1994-1999

Delivery Modes	SF Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	75	19	89	106	124	143	167	191	17
- Platform Operations	20	15	23	26	29	33	37	41	12
- Application Operations	55	20	66	80	95	110	130	150	18
Desktop Services	10	40	14	18	23	30	39	50	29
Network Management	10	10	11	13	15	18	21	23	16
Application Management	5	20	6	7	9	12	15	19	26
Total IS Outsourcing	100	20	120	144	171	203	242	283	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-16

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode United Kingdom, 1994-1999

Delivery Modes	PS Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	525	34	705	865	1050	1235	1420	1620	18
- Platform Operations	150	43	215	265	300	325	340	360	11
- Application Operations	375.	31	490	600	750	910	1080	1260	21
Desktop Services	65	31	85	110	140	175	215	260	25
Network Management	75	20	90	100	120	140	160	180	15
Application Management	35	29	45	60	75	100	130	170	30
Total IS Outsourcing	700	33	930	1140	1390	1650	1930	2230	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

Exhibit A-17

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Eastern Europe, 1994-1999

Delivery Modes	USD Millions								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	12	42	17	22	30	39	51	66	31
- Platform Operations	7	29	9	11	14	17	21	26	24
- Application Operations	5	60	8	11	16	22	30	40	38
Desktop Services	2	50	3	4	6	8	10	15	38
Network Management	2	40	3	3	4	5	6	8	23
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	16	44	23	29	39	51	67	89	31

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source: INPUT*

OSMF

B

Market Forecasts in ECUs (Millions)

Exhibit B-1 presents the IS outsourcing market forecast for Europe in ECUs. Exhibits B-2 through B-18 present detailed IS outsourcing market forecasts for individual countries in ECUs.

Exhibit B-1

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Europe, 1994-1999

2000	25	2500	3000	3500	4100	4800	5700	18
670	24	830	930	1050	1150	1250	1400	11
1300	31	1700	2000	2500	3000	3600	4300	20
270	33	360	460	580	740	930	1200	27
380	18	450	510	600	700	800	920	15
145	38	200	235	290	380	480	610	25
2800	25	3500	4200	5000	5900	7000	8400	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source: INPUT

Exhibit B-2

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Austria, 1994-1999

	ECU Millions (Rounded)								
Delivery Modes	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	10	19	12	15	17	20	23	26	17
- Platform Operations	3	15	4	4	5	5	6	6	12
- Application Operations	7	20	9	11	13	15	18	20	18
Desktop Services	3	29	3	4	5	7	8	10	25
Network Management	3	15	4	4	5	5	6	7	15
Application Management	1	27	2	2	2	3	4	4	25
Total IS Outsourcing	17	20	20	24	28	34	41	47	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source: INPUT

Exhibit B-3

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Belgium, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	63	17	74	87	103	124	150	182	20
- Platform Operations	23	10	25	27	31	36	41	47	14
- Application Operations	41	21	50	60	72	88	109	135	22
Desktop Services	3	36	5	6	8	10	13	17	30
Network Management	3	15	4	5	6	6	8	9	18
Application Management	2	25	3	3	4	5	6	8	25
Total IS Outsourcing	72	18	85	101	120	145	177	216	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source INPUT

Exhibit B-4

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Denmark, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	19	21	23	27	33	39	45	51	18
- Platform Operations	7	10	8	9	10	11	13	14	14
- Application Operations	12	28	15	19	23	27	32	37	19
Desktop Services	5	30	7	9	11	14	17	21	25
Network Management	3	15	3	4	5	5	6	7	17
Application Management	3	25	4	4	6	7	9	11	27
Total IS Outsourcing	29	23	36	44	53	65	77	90	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source: INPUT

Exhibit B-5
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Finland, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	31	18	36	42	48	55	64	76	16
- Platform Operations	12	13	14	15	17	18	21	24	12
- Application Operations	19	21	23	27	32	37	44	52	18
Desktop Services	2	27	3	4	4	5	7	8	23
Network Management	4	16	5	6	7	7	9	10	17
Application Management	1	20	1	1	2	2	2	3	20
Total IS Outsourcing	38	19	45	52	60	70	81	96	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-6
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode France, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	540	18	630	710	810	940	1100	1320	16
- Platform Operations	210	13	240	240	260	280	310	380	10
- Application Operations	330	21	390	470	550	660	790	940	19
Desktop Services	38	30	49	63	80	102	132	170	28
Network Management	110	20	130	150	170	200	230	260	15
Application Management	30	30	40	50	60	80	100	120	25
Total IS Outsourcing	710	19	850	970	1120	1310	1560	1870	17

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

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Exhibit B-7

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Germany, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	150	25	190	230	280	330	380	450	18
- Platform Operations	40	25	50	60	60	70	70	80	10
- Application Operations	110	25	140	180	220	260	310	370	21
Desktop Services	41	31	54	70	88	108	131	162	25
Network Management	80	19	100	110	130	150	170	190	15
Application Management	10	32	20	20	30	40	50	60	30
Total IS Outsourcing	290	25	360	440	530	630	730	870	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-8

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Greece, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	2	12	3	3	3	4	4	5	13
- Platform Operations	1	13	2	2	2	2	3	3	13
- Application Operations	1	12	1	1	1	2	2	2	13
Desktop Services	0	17	0	0	0	0	1	1	22
Network Management	1	27	1	1	1	1	2	2	26
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	3	18	4	4	5	6	6	8	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-9

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Ireland, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	8	33	10	13	16	20	26	32	26
- Platform Operations	5	25	6	8	10	12	15	19	25
- Application Operations	3	50	4	5	6	8	11	13	28
Desktop Services	1	0	1	2	2	3	4	5	30
Network Management	1	0	1	2	2	2	2	3	17
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	10	25	13	16	20	25	32	41	26

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-10

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Italy, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	160	22	190	220	260	310	370	450	18
- Platform Operations	50	15	60	60	70	80	80	110	12
- Application Operations	110	25	130	160	190	240	290	340	21
Desktop Services	26	30	34	45	58	74	95	118	28
Network Management	30	20	30	40	40	50	60	70	16
Application Management	10	24	20	20	20	30	40	50	23
Total IS Outsourcing	230	21	270	320	380	460	560	680	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-11

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Netherlands, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	86	19	102	120	138	164	196	233	18
- Platform Operations	33	14	37	42	46	53	62	72	14
- Application Operations	53	22	65	79	92	111	134	162	20
Desktop Services	25	31	33	41	53	67	85	108	27
Network Management	12	20	14	16	19	21	26	30	17
Application Management	16	26	21	26	33	39	49	62	25
Total IS Outsourcing	138	22	168	203	242	291	355	433	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-12

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Norway, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	22	17	25	29	34	40	47	55	17
- Platform Operations	10	13	11	12	13	15	17	19	12
- Application Operations	12	20	15	18	21	25	30	36	20
Desktop Services	5	25	6	8	10	12	15	19	26
Network Management	3	16	4	4	5	6	7	8	17
Application Management	3	25	3	4	4	6	7	8	21
Total IS Outsourcing	32	19	38	45	53	63	75	90	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-13

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Portugal, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	4	19	5	6	7	9	10	12	18
- Platform Operations	2	16	2	2	3	3	4	4	15
- Application Operations	3	21	3	4	5	5	7	8	20
Desktop Services	1	28	2	2	3	3	4	5	25
Network Management	1	16	1	1	1	1	1	2	15
Application Management	2	15	2	3	3	4	4	5	15
Total IS Outsourcing	8	19	10	12	14	17	20	23	18

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-14

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Spain, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	31	18	37	43	49	58	68	80	17
- Platform Operations	17	15	19	21	23	26	30	33	12
- Application Operations	15	22	18	22	26	32	39	47	22
Desktop Services	3	50	4	5	6	9	11	15	32
Network Management	13	10	14	20	25	32	40	49	28
Application Management	3	20	4	5	6	8	10	12	26
Total IS Outsourcing	49	18	58	72	86	105	129	156	22

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-15

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Sweden, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	127	22	154	184	219	261	315	383	20
- Platform Operations	41	14	47	54	61	70	81	94	15
- Application Operations	86	25	108	130	158	191	234	289	22
Desktop Services	24	30	31	40	51	66	86	113	30
Network Management	7	17	8	9	10	13	14	16	16
Application Management	12	14	14	16	18	22	26	30	18
Total IS Outsourcing	169	22	206	248	299	361	440	542	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-16

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Switzerland, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	46	19	54	64	75	87	101	116	17
- Platform Operations	12	15	14	16	18	20	23	25	12
- Application Operations	34	20	40	49	58	67	79	91	18
Desktop Services	6	40	9	11	14	18	24	30	29
Network Management	6	10	7	8	9	11	13	14	16
Application Management	3	20	4	4	6	8	9	12	26
Total IS Outsourcing	61	20	73	88	104	123	147	172	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-17

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode United Kingdom, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	700	34	940	1150	1390	1640	1890	2150	18
- Platform Operations	200	43	290	350	400	430	450	480	11
- Application Operations	500	31	650	800	1000	1210	1430	1670	21
Desktop Services	86	31	113	146	186	232	286	345	25
Network Management	100	20	120	130	160	190	210	240	15
Application Management	50	29	60	80	100	130	170	230	30
Total IS Outsourcing	930	33	1240	1510	1850	2190	2560	2960	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.　　　　*Source:INPUT*

Exhibit B-18

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Eastern Europe, 1994-1999

Delivery Modes	ECU Millions (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	11	42	15	20	27	35	46	59	31
- Platform Operations	6	29	8	10	13	15	19	23	24
- Application Operations	5	60	7	10	14	19	27	36	38
Desktop Services	2	50	3	4	5	7	9	13	38
Network Management	2	40	3	3	4	5	5	7	23
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	14	44	21	26	35	46	60	80	31

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.　　　　*Source:INPUT*

C
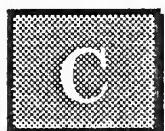
Market Forecasts in U.S. Dollars (Millions)

Exhibit C-1 presents the IS outsourcing market forecast for Europe in U.S. dollars. Exhibits C-2 through C-18 present detailed IS outsourcing market forecasts for individual countries in U.S. dollars.

Exhibit C-1

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Europe, 1994-1999

2250	24	2800	3300	3900	4600	5400	6300	18
750	24	930	1000	1150	1300	1400	1600	11
1500	27	1900	2300	2800	3300	4000	4700	20
300	33	400	510	650	820	1050	1300	27
420	19	500	560	670	790	900	1000	15
160	25	200	260	330	420	530	680	28
3100	26	3900	4700	5600	6600	7900	9300	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-2

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Austria, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	12	19	14	16	19	22	26	30	17
- Platform Operations	4	15	4	5	5	6	6	7	12
- Application Operations	8	20	10	12	14	17	20	23	18
Desktop Services	3	29	4	5	6	7	9	12	25
Network Management	4	15	4	5	5	6	7	8	15
Application Management	1	27	2	2	2	3	4	5	25
Total IS Outsourcing	19	20	23	27	32	38	46	53	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-3

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Belgium, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	71	17	83	97	115	139	168	204	20
- Platform Operations	25	10	28	31	35	40	46	53	14
- Application Operations	46	21	56	67	80	98	122	151	22
Desktop Services	4	36	5	7	9	11	15	19	30
Network Management	4	15	4	5	6	7	9	10	18
Application Management	2	25	3	4	4	6	7	9	25
Total IS Outsourcing	80	18	95	113	134	162	198	241	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-4

Outsourcing Services MarketUser Expenditure Forecast by Delivery Mode and Submode Denmark, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	21	21	25	30	36	43	50	57	18
- Platform Operations	8	10	8	10	11	13	14	16	14
- Application Operations	14	28	17	21	25	30	36	41	19
Desktop Services	6	30	8	10	13	15	19	24	25
Network Management	3	15	4	4	5	6	7	8	17
Application Management	3	25	4	5	6	8	10	12	27
Total IS Outsourcing	33	23	40	49	59	72	86	100	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-5

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Finland, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	34	18	40	46	53	61	70	83	16
- Platform Operations	13	13	15	17	18	20	23	26	12
- Application Operations	21	21	25	30	35	41	48	57	18
Desktop Services	3	27	3	4	5	6	7	9	23
Network Management	5	16	5	6	7	8	10	11	17
Application Management	1	20	1	1	1	2	2	3	20
Total IS Outsourcing	42	19	49	57	66	76	89	106	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-6

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode France, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	600	18	710	790	910	1050	1230	1480	16
- Platform Operations	240	13	270	270	290	320	350	430	10
- Application Operations	360	21	440	520	620	730	880	1050	19
Desktop Services	42	30	55	70	90	114	147	190	28
Network Management	120	20	140	160	190	220	250	290	15
Application Management	34	30	44	54	68	85	107	134	25
Total IS Outsourcing	800	19	950	1080	1250	1470	1740	2090	17

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source:INPUT

Exhibit C-7

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Germany, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	170	25	220	260	320	370	430	500	18
- Platform Operations	50	25	60	60	70	80	80	90	10
- Application Operations	130	25	160	200	240	290	340	410	21
Desktop Services	46	31	60	78	98	121	147	181	25
Network Management	90	19	110	120	140	170	190	220	15
Application Management	14	32	19	25	33	43	55	71	30
Total IS Outsourcing	320	25	400	490	590	700	820	970	19

*Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.*   Source:INPUT

OSMF

Exhibit C-8

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Greece, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	3	12	3	3	4	4	5	6	13
- Platform Operations	2	13	2	2	2	3	3	3	13
- Application Operations	1	12	1	1	2	2	2	2	13
Desktop Services	0	17	0	0	0	1	1	1	22
Network Management	1	27	1	1	1	1	2	2	26
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	3	18	4	5	5	6	7	8	16

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-9

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Ireland, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	9	33	11	14	18	23	29	36	26
- Platform Operations	6	25	7	9	11	13	17	21	25
- Application Operations	3	50	4	6	7	9	12	15	28
Desktop Services	1	0	1	2	2	3	4	5	30
Network Management	1	0	1	2	2	2	3	3	17
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	11	25	14	18	23	28	35	45	26

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-10
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Italy, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	180	22	210	250	290	350	420	500	18
- Platform Operations	60	15	70	70	70	80	90	120	12
- Application Operations	120	25	150	180	220	260	320	380	21
Desktop Services	29	30	38	50	64	82	105	132	28
Network Management	30	20	40	40	50	60	60	70	16
Application Management	15	24	18	21	25	32	40	51	23
Total IS Outsourcing	250	21	300	360	430	510	630	750	20

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit B-11
Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Netherlands, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	96	19	114	134	155	183	219	261	18
- Platform Operations	36	14	41	47	52	60	70	80	14
- Application Operations	60	22	72	88	103	124	150	181	20
Desktop Services	28	31	37	46	59	75	95	121	27
Network Management	13	20	16	18	21	23	29	34	17
Application Management	18	26	23	28	36	44	54	70	25
Total IS Outsourcing	155	22	188	227	271	325	397	485	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

OSMF

Exhibit C-12

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Norway, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	24	17	28	33	38	45	52	61	17
- Platform Operations	11	13	12	14	15	17	19	22	12
- Application Operations	14	20	16	20	24	28	33	40	20
Desktop Services	5	25	7	9	11	13	17	21	26
Network Management	4	16	4	5	5	6	7	9	17
Application Management	3	25	3	4	5	6	7	9	21
Total IS Outsourcing	35	19	42	50	59	70	83	100	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-13

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Portugal, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	5	19	6	7	8	10	11	13	18
- Platform Operations	2	16	2	3	3	4	4	5	15
- Application Operations	3	21	3	4	5	6	7	9	20
Desktop Services	1	28	2	2	3	4	5	6	25
Network Management	1	16	1	1	1	1	2	2	15
Application Management	2	15	3	3	4	4	5	5	15
Total IS Outsourcing	9	19	11	13	16	19	22	26	18

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

Exhibit C-14

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Spain, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	35	18	41	47	55	64	76	89	17
- Platform Operations	18	15	21	24	26	29	33	37	12
- Application Operations	16	22	20	24	29	35	43	53	22
Desktop Services	3	50	4	6	7	10	13	17	32
Network Management	14	10	16	22	28	35	44	54	28
Application Management	4	20	4	5	7	8	11	13	26
Total IS Outsourcing	55	18	65	80	96	117	144	174	22

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source:INPUT

Exhibit C-15

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Sweden, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	142	22	172	205	245	292	352	428	20
- Platform Operations	46	14	52	60	69	78	90	105	15
- Application Operations	96	25	120	145	177	214	262	323	22
Desktop Services	26	30	34	44	57	74	96	126	30
Network Management	7	17	9	10	12	14	16	18	16
Application Management	13	14	15	17	20	25	29	34	18
Total IS Outsourcing	188	22	230	277	334	404	492	605	21

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source:INPUT

Exhibit C-16

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Switzerland, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	54	19	64	77	89	103	120	138	17
- Platform Operations	15	15	17	19	21	24	27	30	12
- Application Operations	40	20	48	58	69	79	94	108	18
Desktop Services	7	40	10	13	17	22	28	36	29
Network Management	7	10	8	10	11	13	15	17	16
Application Management	4	20	4	5	6	9	11	14	26
Total IS Outsourcing	72	20	87	104	123	146	174	204	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source:INPUT

Exhibit C-17

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode United Kingdom, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	780	34	1040	1280	1550	1830	2100	2400	18
- Platform Operations	220	43	320	390	440	480	500	530	11
- Application Operations	550	31	720	890	1110	1350	1600	1860	21
Desktop Services	96	31	126	163	207	259	318	385	25
Network Management	110	20	130	150	180	210	240	270	15
Application Management	52	29	67	89	111	148	192	251	30
Total IS Outsourcing	1040	33	1380	1690	2060	2440	2860	3300	19

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   Source:INPUT

Exhibit C-18

Outsourcing Services Market/User Expenditure Forecast by Delivery Mode and Submode Eastern Europe, 1994-1999

Delivery Modes	US$ Million (rounded)								
	1993	93-94 Growth (%)	1994	1995	1996	1997	1998	1999	94-99 CAGR (%)
Systems Operations	12	42	17	22	30	39	51	66	31
- Platform Operations	7	29	9	11	14	17	21	26	24
- Application Operations	5	60	8	11	16	22	30	40	38
Desktop Services	2	50	3	4	6	8	10	15	38
Network Management	2	40	3	3	4	5	6	8	23
Application Management	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	16	44	23	29	39	51	67	89	31

Because of rounding, data may not add to totals. CAGRs are calculated on pre-rounded values.   *Source:INPUT*

D

Forecast Reconciliation

A
Europe

Exhibit D-1 shows the reconciliation between the 1993 and 1994 forecasts for Europe.

Exhibit D-1

Information Services Market 1994 Forecast Database Reconciliation Europe, 1993-1998

	1993 Market				1998 Market				1993	1994
USD Millions	1993 Report	1994 Report	Variance	Variance	1993 Report	1994 Report	Variance	Variance	Report CAGR	Report CAGR
Delivery Mode	(Fcst)	(Act)	(Amount)	(%)	(Fcst)	(Fcst)	(Amount)	(%)	(Fcst)	(Fcst)
Systems Operations	2380	2250	130	5	5800	5400	400	7	20	18
- Platform Operations	1340	750	590	44	3010	1400	1610	53	18	11
- Application Operations	1040	1500	(460)	(44)	2790	4000	(1210)	(43)	22	20
Desktop Services	275	300	(25)	(9)	800	1050	(250)	(31)	24	27
Network Management	460	420	40	9	1330	900	. 430	32	24	15
Application Management	170	160	10	6	740	530	210	28	34	28
Total IS Outsourcing	3290	3100	190	6	8670	7900	770	9	21	19

Source: INPUT

In real terms, there is an increase of 6% between last year's IS outsourcing forecast for 1993 and this year's forecast. However, since differences in the exchange rates used produce an apparent decrease in expenditure of 12%, the net effect is an apparent fall of 6%.

Large variances occur between the 1993 and 1994 forecasts for the individual components within systems operations. The reason for this is a change in definition. In last year's forecast, the market for platform operations included contracts with application maintenance on outsourced legacy systems. The estimate of expenditure for these transition outsourcing contracts has now been transferred to the applications operations subsector, as have all contracts that involve the vendor in application maintenance or development.

The overall growth rate forecast has been reduced slightly in line with the increasing maturity of the market one year later. However, the prospects for strong growth in the European outsourcing market remain excellent, particularly in emerging subsectors such as application management and desktop services.

The forecast for network management has been reduced since much of the initial network management growth will occur within systems operations contracts rather than as stand-alone contracts. However, network management remains a major future opportunity within the European outsourcing market.

B

Austria

Exhibit D-2 shows the reconciliation between the 1993 and 1994 forecasts for Austria.

Exhibit D-2

Information Services Market 1994 Forecast Database Reconciliation Austria, 1993-1998

Sch Millions Delivery Mode	1993 Market				1998 Market				1993 Report CAGR (Fcst)	1994 Report CAGR (Fcst)
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)		
Systems Operations	140	140	0	0	260	316	56	22	13	18
- Platform Operations	75	40	-35	-47	140	76	-64	-46	13	14
- Application Operations	65	100	35	54	120	240	120	100	13	19
Desktop Services	35	35	0	0	100	115	15	15	23	27
Network Management	40	40	0	0	150	81	-69	-46	30	15
Application Management	15	15	0	0	31	46	15	48	16	25
Total IS Outsourcing	230	230	0	0	541	560	19	4	19	19

Source: INPUT

C
Belgium

Exhibit D-3 shows the reconciliation between the 1993 and 1994 forecasts for Belgium. The forecast growth in Belgium has been increased in response to the entry of a number of additional major players into the Belgian outsourcing market in 1993.

Exhibit D-3

Information Services Market 1994 Forecast Database Reconciliation Belgium, 1993-1998

BF Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	2650	2550	-100	-4	5750	6050	300	5	17	19
- Platform Operations	1700	900	-800	-47	3600	1650	-1950	-54	16	13
- Application Operations	950	1650	700	74	2150	4400	2250	105	18	22
Desktop Services	40	140	100	250	150	535	385	257	30	31
Network Management	135	130	-5	-4	355	300	-55	-15	21	18
Application Management	80	80	0	0	250	250	0	0	26	26
Total IS Outsourcing	2905	2900	-5	0	6505	7140	635	10	17	20

Source: INPUT

D

Denmark

Exhibit D-4 shows the reconciliation between the 1993 and 1994 forecasts for Denmark.

Exhibit D-4

Information Services Market 1994 Forecast Database Reconciliation Denmark, 1993-1998

DK Millions Delivery Mode	1993 Market				1998 Market				1993 Report CAGR (Fcst)	1994 Report CAGR (Fcst)
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)		
Systems Operations	140	140	0	0	325	335	10	3	18	19
- Platform Operations	65	50	-15	-23	145	95	-50	-34	17	14
- Application Operations	75	90	15	20	180	240	60	33	19	22
Desktop Services	40	40	0	0	100	130	30	30	20	27
Network Management	19	20	1	5	60	44	-16	-27	26	17
Application Management	20	20	0	0	60	66	6	10	25	27
Total IS Outsourcing	219	220	1	0	545	580	35	6	20	21

Source: INPUT

OSMF

E
Finland

Exhibit D-5 shows the reconciliation between the 1993 and 1994 forecasts for Finland.

Exhibit D-5

Information Services Market 1994 Forecast Database Reconciliation Finland, 1993-1998

FM Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	195	195	0	0	415	405	-10	-2	16	16
- Platform Operations	115	75	-40	-35	240	130	-110	-46	16	12
- Application Operations	80	120	40	50	175	275	100	57	17	18
Desktop Services	15	15	0	0	45	42	-3	-7	25	23
Network Management	23	25	2	9	76	54	-22	-29	27	17
Application Management	5	5	0	0	15	12	-3	-20	25	19
Total IS Outsourcing	238	240	2	1	551	515	-36	-7	18	16

Source: INPUT

F

France

Exhibit D-6 shows the reconciliation between the 1993 and 1994 forecasts for France. The size of the French market has been increased following a re-appraisal of vendor's revenues.

Exhibit D-6

Information Services Market 1994 Forecast Database Reconciliation France, 1993-1998

FF Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	3100	3550	450	15	7210	7230	20	0	18	15
- Platform Operations	1750	1400	-350	-20	4010	2050	-1960	-49	18	8
- Application Operations	1350	2150	800	59	3200	5180	1980	62	19	19
Desktop Services	200	250	50	25	690	870	180	26	28	28
Network Management	700	700	0	0	1800	1500	-300	-17	21	16
Application Management	200	200	0	0	950	630	-320	-34	37	26
Total IS Outsourcing	4200	4700	500	12	10650	10250	-400	-4	20	17

Source: INPUT

OSMF

G
Germany

Exhibit D-7 shows the reconciliation between the 1993 and 1994 forecasts for Germany.

Exhibit D-7

Information Services Market 1994 Forecast Database Reconciliation Germany, 1993-1998

DM Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	305	300	-5	-2	820	745	-75	-9	22	20
- Platform Operations	180	80	-100	-56	485	145	-340	-70	22	13
- Application Operations	125	220	95	76	335	600	265	79	22	22
Desktop Services	80	80	0	0	210	255	45	21	21	26
Network Management	155	155	0	0	400	330	-70	-18	21	16
Application Management	23	25	2	9	65	96	31	48	23	31
Total IS Outsourcing	563	560	-3	-1	1495	1425	-70	-5	22	21

Source: INPUT

H

Greece

Exhibit D-8 shows the reconciliation between the 1993 and 1994 forecasts for Greece.

Exhibit D-8

Information Services Market 1994 Forecast Database Reconciliation Greece, 1993-1998

		1993 Market				1998 Market				1993	1994
Dra Millions Delivery Mode	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	660	660	0	0	1300	1210	-90	-7	15	13
- Platform Operations	400	400	0	0	800	740	-60	-8	15	13
- Application Operations	260	260	0	0	500	470	-30	-6	14	13
Desktop Services	60	60	0	0	170	155	-15	-9	23	21
Network Management	130	130	0	0	455	425	-30	-7	28	27
Application Management	0	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	850	850	0	0	1925	1800	-125	-6	18	16

Source: INPUT

I
Ireland

Exhibit D-9 shows the reconciliation between the 1993 and 1994 forecasts for Ireland.

Exhibit D-9

Information Services Market 1994 Forecast Database Reconciliation Ireland, 1993-1998

IP Millions	1993 Market				1998 Market				1993	1994
	1993	1994			1993	1994			Report	Report
	Report	Report	Variance	Variance	Report	Report	Variance	Variance	CAGR	CAGR
Delivery Mode	(Fcst)	(Act)	(Amount)	(%)	(Fcst)	(Fcst)	(Amount)	(%)	(Fcst)	(Fcst)
Systems Operations	5	6	1	20	15	21	6	41	24	28
- Platform Operations	4	4	1	14	10	12	2	20	23	25
- Application Operations	2	2	1	33	5	9	4	89	25	34
Desktop Services	0	1	1	150	3	3	0	4	48	24
Network Management	1	1	0	0	3	2	-1	-42	27	14
Application Management	0	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	7	8	2	23	21	25	4	21	26	26

Source: INPUT

J

Italy

Exhibit D-10 shows the reconciliation between the 1993 and 1994 forecasts for Italy.

Exhibit D-10

Information Services Market 1994 Forecast Database Reconciliation Italy, 1993-1998

Lira Billions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	340	300	-40	-12	770	710	-60	-8	18	19
- Platform Operations	150	100	-50	-33	320	160	-160	-50	16	10
- Application Operations	190	200	10	5	450	550	100	22	19	22
Desktop Services	15	50	35	233	46	180	134	291	25	29
Network Management	50	50	0	0	175	110	-65	-37	28	17
Application Management	27	25	-2	-7	80	69	-11	-14	24	23
Total IS Outsourcing	432	430	-2	0	1071	1070	-1	0	20	20

Source: INPUT

OSMF

K

Netherlands

Exhibit D-11 shows the reconciliation between the 1993 and 1994 forecasts for Europe.

Exhibit D-11

Information Services Market 1994 Forecast Database Reconciliation Netherlands, 1993-1998

Dfl Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	185	185	0	0	400	425	25	6	17	18
- Platform Operations	120	70	-50	-42	250	135	-115	-46	16	14
- Application Operations	65	115	50	77	150	290	140	93	18	20
Desktop Services	55	55	0	0	140	185	45	32	21	27
Network Management	25	25	0	0	65	55	-10	-15	21	17
Application Management	35	35	0	0	105	105	0	0	25	25
Total IS Outsourcing	300	300	0	0	710	770	60	8	19	21

Source: INPUT

L

Norway

Exhibit D-12 shows the reconciliation between the 1993 and 1994 forecasts for Norway.

Exhibit D-12

Information Services Market 1994 Forecast Database Reconciliation Norway, 1993-1998

NK Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	185	180	-5	-3	390	390	0	0	16	17
- Platform Operations	100	80	-20	-20	210	140	-70	-33	16	12
- Application Operations	85	100	15	18	180	250	70	39	16	20
Desktop Services	40	40	0	0	115	125	10	9	24	26
Network Management	25	25	0	0	83	54	-29	-35	27	17
Application Management	15	20	5	33	45	55	10	22	25	22
Total IS Outsourcing	265	265	0	0	633	625	-8	-1	19	19

Source: INPUT

M
Portugal

Exhibit D-13 shows the reconciliation between the 1993 and 1994 forecasts for Portugal. The size of the outsourcing market in Portugal has been increased following indications of increased levels of activity there.

Exhibit D-13

Information Services Market 1994 Forecast Database Reconciliation Portugal, 1993-1998

Esc Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	255	850	595	233	590	2010	1420	241	18	19
- Platform Operations	140	350	210	150	315	725	410	130	18	16
- Application Operations	115	500	385	335	275	1285	1010	367	19	21
Desktop Services	73	250	177	242	190	800	610	321	21	26
Network Management	125	125	0	0	410	265	-145	-35	27	16
Application Management	0	400	400	399900	0	815	815	814900	0	15
Total IS Outsourcing	453	1625	1172	259	1190	3890	2700	227	21	19

Source: INPUT

N

Spain

Exhibit D-14 shows the reconciliation between the 1993 and 1994 forecasts for Spain.

Exhibit D-14

Information Services Market 1994 Forecast Database Reconciliation Spain, 1993-1998

Ptas Millions Delivery Mode	1993 Market				1998 Market				1993 Report CAGR (Fcst)	1994 Report CAGR (Fcst)
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)		
Systems Operations	4950	4900	-50	-1	10950	10850	-100	-1	17	17
- Platform Operations	2600	2600	0	0	5700	4700	-1000	-18	17	13
- Application Operations	2350	2300	-50	-2	5250	6150	900	17	17	22
Desktop Services	375	400	25	7	1150	1820	670	58	25	35
Network Management	2000	2000	0	0	6200	6300	100	2	25	26
Application Management	550	500	-50	-9	1590	1500	-90	-6	24	25
Total IS Outsourcing	7875	7800	-75	-1	19890	20500	610	3	20	21

Source: INPUT

OSMF

O
Sweden

Exhibit D-15 shows the reconciliation between the 1993 and 1994 forecasts for Sweden. The size of the Swedish outsourcing market has been increased following a re-appraisal of vendor revenues.

Exhibit D-15

Information Services Market 1994 Forecast Database Reconciliation Sweden, 1993-1998

SK Millions Delivery Mode	1993 Market				1998 Market				1993 Report CAGR (Fcst)	1994 Report CAGR (Fcst)
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)		
Systems Operations	680	1180	500	74	1405	2930	1525	109	16	20
- Platform Operations	280	380	100	36	565	750	185	33	15	15
- Application Operations	400	800	400	100	840	2180	1340	160	16	22
Desktop Services	60	220	160	267	155	800	645	416	21	29
Network Management	60	60	0	0	220	130	-90	-41	30	17
Application Management	45	110	65	144	150	240	90	60	27	17
Total IS Outsourcing	845	1570	725	86	1930	4100	2170	112	18	21

Source: INPUT

P

Switzerland

Exhibit D-16 shows the reconciliation between the 1993 and 1994 forecasts for Switzerland.

Exhibit D-16

Information Services Market 1994 Forecast Database Reconciliation Switzerland, 1993-1998

SF Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	58	75	17	29	105	167	62	59	13	17
- Platform Operations	35	20	-15	-43	60	37	-23	-38	11	13
- Application Operations	23	55	32	139	45	130	85	189	14	19
Desktop Services	5	10	5	100	16	39	23	144	26	31
Network Management	9	10	1	11	32	21	-12	-36	29	15
Application Management	3	5	2	67	9	15	6	67	25	25
Total IS Outsourcing	75	100	25	33	162	242	80	49	17	19

Source: INPUT

OSMF

Q

United Kingdom

Exhibit D-17 shows the reconciliation between the 1993 and 1994 forecasts for United Kingdom.

Exhibit D-17

Information Services Market 1994 Forecast Database Reconciliation United Kingdom, 1993-1998

PS Millions Delivery Mode	1993 Market				1998 Market				1993	1994
	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	520	525	5	1	1380	1420	40	3	22	22
- Platform Operations	310	150	-160	-52	700	340	-360	-51	18	18
- Application Operations	210	375	165	79	680	1080	400	59	26	24
Desktop Services	65	65	0	0	190	215	25	13	24	27
Network Management	75	75	0	0	245	160	-85	-35	27	16
Application Management	35	35	0	0	195	130	-65	-33	41	30
Total IS Outsourcing	695	700	5	1	2010	1930	-80	-4	24	22

Source: INPUT

R
Eastern Europe

Exhibit D-18 shows the reconciliation between the 1993 and 1994 forecasts for Eastern Europe.

Exhibit D-18

Information Services Market1994 Forecast Database Reconciliation Eastern Europe, 1993-1998

	1993 Market				1998 Market				1993	1994
USD Millions Delivery Mode	1993 Report (Fcst)	1994 Report (Act)	Variance (Amount)	Variance (%)	1993 Report (Fcst)	1994 Report (Fcst)	Variance (Amount)	Variance (%)	Report CAGR (Fcst)	Report CAGR (Fcst)
Systems Operations	12	12	0	0	85	51	-34	-40	48	34
- Platform Operations	7	7	0	0	35	21	-14	-40	38	25
- Application Operations	5	5	0	0	50	30	-20	-40	58	43
Desktop Services	2	2	0	0	10	10	0	0	38	38
Network Management	2	2	0	0	10	6	-4	-40	38	25
Application Management	0	0	0	0	0	0	0	0	0	0
Total IS Outsourcing	16	16	0	-1	105	67	-38	-36	46	33

Source: INPUT

E
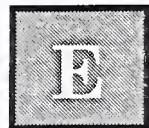
Economic Assumptions

Exhibit E-1 lists the exchange rates used to prepare the forecasts in this report.

Exhibit E-1

US Dollar and ECU Exchange Rates 1994

Country	Currency $	US Dollar 1	ECU
France	FF	5.90	6.59
Germany	DM	1.74	1.94
United Kingdom	PS	0.676	0.753
Italy	Lira (K)	1.71	1.90
Sweden	Sek	8.34	9.32
Denmark	DK	6.79	7.56
Norway	NK	7.52	8.39
Finland	FM	5.79	6.35
Netherlands	Dfl	1.94	2.17
Belgium	BF	36.15	40.41
Switzerland	SF	1.39	1.65
Austria	Sch	12.19	13.82
Spain	Ptas	142.92	159.30
Ireland	IP	0.71	0.791
Portugal	Esc	176.7	197.10
Greece	Dra	249.35	280.00
Eastern Germany	$	1	0.890

Source: Financial Times January 1994

Exhibit E-2

Inflation Assumptions 1993 and 1994

Country	Assumption 1993-1998	Assumption 1994-1999	Change
France	2.3	1.9	-0.4
Germany	4.0	2.9	-1.1
United Kingdom	2.0	3.0	1.0
Italy	3.8	3.2	-0.6
Sweden	2.3	2.0	-0.3
Denmark	1.6	2.6	1.0
Norway	2.2	1.5	-0.7
Finland	0.2	2.0	1.8
Netherlands	1.9	2.0	0.1
Belgium	3.0	2.2	-0.8
Switzerland	2.3	1.7	-0.6
Austria	3.8	2.8	-1.0
Spain	4.5	3.4	-1.1
Portugal	5.8	4.8	-1.0
Greece	13.2	11.2	-2.0
Ireland	2.7	3.3	0.6
Eastern Germany	-	-	-
Average	3.1	2.8	-0.3

Source: OECD December 1993